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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte NTP, Inc.

Appeal 2008-004605 Reexamination Control 90/007,723, 90/006,678 and 90/006,491 Patent No. 5,625,670¹ Technology Center 2600

ENTERED: December 11, 2009

Before JAMES T. MOORE, *Vice Chief Administrative Patent Judge*, JAMESON LEE and SALLY C. MEDLEY, *Administrative Patent Judges*.

Per Curiam

DECISION ON APPEAL

NTP, Inc. ("NTP"), the assignee of Patent 5,625,670 under reexamination, appeals under 35 U.S.C. §§ 134(b) and 306 from a final rejection of claims 1-276 and 555-606. We have jurisdiction under 35 U.S.C. §§ 6(b) and 134(b).

We affirm-in-part.

STATEMENT OF THE CASE

The involved Patent 5,625,670 ("the NTP '670 patent") was the subject of three ex parte reexamination proceedings 90/007,723, 90/006,678,

¹ Based on Application 08/443,430, filed on May 18, 1995.

and 90/006,491, which were merged by order dated February 24, 2007. Final Action by the Examiner was entered on August 22, 2006. The NTP '670 patent issued on April 29, 1997, with patent claims 1-276. Claims 277-606 were added during reexamination, and claims 277-554 have been cancelled.

Together with other NTP patents, the NTP '670 patent was the subject of a patent infringement suit filed by NTP against Research In Motion, Ltd. (RIM) in the U.S. District Court for the Eastern District of Virginia. The district court entered judgment in favor of NTP. *NTP, Inc. v. Research in Motion, Ltd.*, No. 3:01CV767, 2003 WL 23100881 (E.D. Va Aug. 5, 2003). RIM appealed that judgment to the Court of Appeals for the Federal Circuit, who affirmed-in-part, reversed-in-part, and vacated-in-part. *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282 (Fed. Cir. 2005).

The Federal Circuit described the inventors' innovation as follows, referring to the specification of NTP's Patent 5,436,960, which according to the Court has the same written description as the NTP '670 patent, *NTP*, *Inc. v. Research in Motion*, *Ltd.*, 418 F.3d at 1289:

In simplified terms, the Campana invention operates in the following manner: A message originating in an electronic mail system may be transmitted not only by wireline but also via RF [radio frequency], in which case it is received by the user and stored in his or her mobile RF receiver. The user can view the message on the RF receiver and, at some later point, connect the RF receiver to a fixed destination processor, *i.e.*, his or her personal desktop computer, and transfer the stored message. *Id.* at col. 18, ll. 39-66. Intermediate transmission to the RF receiver is advantageous because it "eliminat[es] the requirement that the destination processor [be] turned on and carried with the user" to receive messages. *Id.* at col. 18, ll. 44-

46. Instead, a user can access his or her email stored on the RF receiver and "review . . . its content without interaction with the destination processor," *id.* at col. 18, l. 67 -- col. 19, l. 1, while reserving the ability to transfer the stored messages automatically to the destination processor, *id.* at col. 19, ll. 1-2.

Of NTP's three hundred and twenty eight claims on appeal, however, only twenty four claims, *i.e.*, claims 20-23, 30-32, 40, 41, 53-56, 76-79, 86, 96, 97, and 109-112, include the requirement that the RF receiver has its own memory for storing received information. None requires a display in the receiver and none requires that the wirelessly transmitted originated information from an electronic mail system is received by the RF receiver when it is not attached to a destination processor.

Although ten claims, *i.e.*, claims 21, 22, 31, 32, 42, 78, 87, 88, 97, and 111, include the requirement that the originated information is transferred from the receiver to the destination processor "upon" connection of the receiver to the destination processor, the recitation does not require a receiver to receive a message when it is not connected to a destination processor. The word "upon" is broad enough to mean "thereafter,"² in which case both the reception and the transfer by the RF receiver can occur while the RF receiver is attached to the destination processor. Similarly, although six claims, *i.e.*, claims 22, 32, 42, 78, 88, and 98, recite that the destination processor is turned off when the RF receiver set the originated information of a transmitted message, the recitation does not require the receiver to be detached from the destination processor when wirelessly transmitted information is received by the receiver.

² Merriam-Webster's Collegiate Dictionary, 10th Edition (1999).

Thus, the claims on appeal read on implementations which do not provide the advantage and breakthrough discussed in the specification.

Note further that according to each of claims 20-23, 30-32, 40, 41, 42, 53-56, 76-79, 86, 87, 88, 96, 97, 98, and 109-112 mentioned above, the subject RF receiver is within the RF information transmission network which still must make RF transmission of originated information to the destination processor. That is unlike a RF receiver which simply makes a wired transfer of originated information when it is physically attached or connected to the destination processor.

Claims 1-276 and 555-606, in various combinations, were finally rejected over fourteen separate grounds of rejection. The prior art references relied on by the Examiner are as follows:³

1. Telenor '89 -- Stig Kaspersen et al., Norwegian Telecommunication Administration, Mobile Data Network Description (1989) (Volumes 1-4, 6-8 (there is no Volume 5)).

2. Cole -- Cole et al., "An Architecture for a Mobile OSI Mail Access System," IEEE Journal on Selected Areas in Communications (February 1989) (Vol. 7, No. 2).

3. Perkins -- U.S. Patent 5,159,592, issued October 27, 1992, based on application filed October 29, 1990.

4. Shoch -- Shoch et al., "Interconnecting Local Networks via the Packet Radio Network," IEEE CH1405-0/79/0000-0153 (November 1979).

5. Harrison -- U.S. Patent 5,181,200, issued January 19, 1993, based on application filed October 29, 1990.

³ The Examiner also relied on the inventors' own admitted prior art.

6. Hortensius -- U.S. Patent 5,917,629, issued June 29, 1999, based on application filed October 29, 1990.

7. Verjinski -- Verjinski, Richard D., "PHASE, A Portable Host Access System Environment," 3 IEEE Military Communications Conference 1989, 0806-0809 (1989).

8. DeVaney -- U.S. Patent 4,698,839, issued October 6, 1987, based on application filed June 3, 1986.

9. Gehlot -- Gehlot et al., "Formal Specification and Analysis of DMI -- An X.25 based Protocol," IEEE Pub #CH2534-6/88/0000-0641.

10. Rodriguez -- Rodriguez, "An X.PC/TCP Translator," IEEE Pub #CH2534-6/88/0000/0308.

Claims 1-4, 8, 24, 28, 34, 38, 57-60, 64, 80, 84, 90, 95, 113-116, 119-122, 125-128, 131-134, 173, 174, 177, 181, 182, 185, and 186 were finally rejected under 35 U.S.C. § 102(b) as anticipated by Cole.

Claims 1-6, 8-20, 23-26, 28-30, 33-36, 38-40, 43-62, 64-76, 79-82, 84-86, 89-92, 94-96, 99-276, and 555-606 were finally rejected under 35 U.S.C. § 102(b) as anticipated by Telenor '89.

Claims 1-4, 6, 8, 10-12, 14-16, 18, 19, 24, 26, 28, 29, 34, 36, 38, 39, 57-60, 62, 64, 66-68, 70-72, 74, 75, 80, 82, 84, 85, 90. 92. 94, 95, 113-116, 118-122, 124-128, 130-134, 136, 137, 143, 146, 152, 155, 161, 164, 170, 173, 174, 176, 177, 180, 181, 182, 184-186, 188, 189, 195, 198, 204, 207, 213, 216, 222, 225, 226, 228-230, 232, 233, 239, 242, 248, 251, 252, 254-256, 258, 259, 265, 268, 274, 563, 565, 567, 568, and 571 were finally rejected under 35 U.S.C. § 102(b) as anticipated by Verjinski.

Claims 3, 9, 17, 34, 36, 38, 39, 59, 65, 73, 90, 92, 94, 95, 116, 122, 128, and 134 were finally rejected under 35 U.S.C. § 103 as obvious over Verjinski.

Claims 5, 25, 35, 61, 81, 91, 117, 123, 129, 135, 175, 179, 183, and 187 were finally rejected under 35 U.S.C. § 103 as obvious over Verjinski and the inventors' own admitted prior art.

Claims 13 and 69 were finally rejected under 35 U.S.C. § 103 as obvious over Verjinski, Gehlot, and Rodriguez.

Claims 138, 139, 144, 145, 148, 153, 154, 157, 162, 163, 165, 166, 171, 172, 190, 191, 196, 197, 199, 200, 205, 206, 208, 209, 214, 215, 217, 218, 223, and 224 were finally rejected under 35 U.S.C. § 103 as obvious over Verjinski and DeVaney.

Claims 1, 4, 19, 20-24, 29, 30-33, 57, 60, 75-80, 85-90, 95-99, 113, 114, 119, 120, 125, 126, 131, 132, 137, 146, 155, 164, 173, 174, 177, 178, 181, 182, 185, 186, 189, 198, 207, and 216 were finally rejected under 35 U.S.C. § 103 as obvious over Perkins and Hortensius.

Claims 53-56 and 109-112 were finally rejected under 35 U.S.C. § 103 as obvious over Perkins, Hortensius, and the inventors' own admitted prior art.

Claims 1-276 were finally rejected under 35 U.S.C. § 103 as obvious over the inventors' own admitted prior art, Harrison, and Shoch.

Claims 555-562, 573, 577-580, 595, 597 and 598 were finally rejected under 35 U.S.C. § 112, first paragraph, as without written description in the specification.

Claims 555-562, 573, 577-580, 595, 597 and 598 were finally rejected under 35 U.S.C. § 112, first paragraph, as lacking an enabling disclosure.

Claims 555-562, 577-580, 597 and 598 were finally rejected under 35 U.S.C. § 305 as violating the prohibition against enlargement of the scope of a patent claim in a reexamination proceeding.

Claims 560, 561, and 562 were finally rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim subject matter which the inventors regard as their invention. This rejection was later withdrawn by the Examiner. (Answer 224:10-12).

DISCUSSION

The discussion below is organized into Sections A-L.

Section A discusses claim interpretation.

Section B discusses the anticipation rejection based on Cole.

Section C discusses rejections based in whole or in part on Telenor

'89.

Section D discusses rejections based in whole or in part on Verjinski.

Section E discusses the rejection of claims 1-276 based on NTP's admitted prior art, Harrison, and Shoch.

Section F discusses rejections based in whole or in part on Perkins.

Section G discusses secondary considerations and evidence of nonobviousness.

Section H addresses NTP's argument that the copy of Telenor '89 relied on by the Examiner contains content which have been altered and manipulated and thus is not authentic, and also NTP's argument that Telenor '89 is not a printed publication.

Section I addresses NTP's efforts to antedate Perkins, Hortensius, and Harrison as prior art.

Section J addresses the rejection of claims 555-562, 573, 577-580, 595, 597 and 598 under 35 U.S.C. § 112, first paragraph, for lack of enabling disclosure.

Section K discusses the rejection of claims 555-562, 577-580, 597 and 598 under 35 U.S.C. § 305.

Section L addresses the rejection of claims 555-562, 573, 577-580, 595, 597 and 598 under 35 U.S.C. § 112, first paragraph, for lack of written description in the specification.

A. Claim Interpretation

NTP argues that we must adopt the claim interpretation applied by the U.S. District Court for the Eastern District of Virginia in the infringement litigation between NTP and RIM involving the NTP '670 patent, which have been either affirmed or not reached by the Federal Circuit. According to NTP, the final court interpretation of the meaning of claim terms in its infringement litigation applies in this merged reexamination proceeding. The argument is without merit. The claim interpretation affirmed by the Federal Circuit in NTP's patent infringement suit does not control in the proceeding before us and neither does the claim interpretation applied by the Federal Circuit. We construe NTP's claim terms according to the rules of claim interpretation applicable to reexamination proceedings before the USPTO.

NTP maintains (Brief 17-26) that the Examiner erred in construing the claims on appeal. The examiner interpreted the claims by applying the rule

generally applicable in reexamination proceedings, *i.e.*, claim terms are given their broadest reasonable construction consistent with the specification. The reexamination claim construction rule for *unexpired* patents was first announced in *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984) (during reexamination, claims of unexpired patents are given the broadest reasonable construction consistent with specification).

The USPTO and the Federal Circuit have consistently followed the rule since Yamamoto. See, e.g., (1) In re Etter, 756 F.2d 852, 856-58 (Fed. Cir. 1985) (en banc) ((a) presumption of validity does not apply in reexamination; (b) claims of unexpired patent in reexamination given broadest reasonable construction; (c) reexamination is an ex parte proceeding); (2) In re Hiniker Co., 150 F.3d 1362, 1368 (Fed. Cir. 1998) (claims in a reexamination proceeding are to be given their broadest reasonable interpretation); (3) In re Am. Acad. of Sci. Tech Ctr., 367 F.3d 1359, 1363 (Fed. Cir. 2004) (claims are given broadest reasonable construction in reexamination); (4) In re ICON Health and Fitness, Inc., 496 F.3d 1374, 1379 (Fed. Cir. 2007) (during reexamination, PTO gives claims broadest reasonable interpretation; as patent owner has an opportunity to amend the patent claims); and (5) In re Translogic Technology, Inc., 504 F.3d 1249, 1256 (Fed. Cir. 2007) (during reexamination, claims are given their broadest reasonable interpretation consistent with the specification). Cf. Ex parte Papst-Motoren, 1 USPQ2d 1655 (BPAI 1986)(reexamination claim construction applied where the patent undergoing reexamination has expired.).

According to NTP, the *Yamamoto* reexamination claim construction practice should *not* apply in this case. NTP tells the Board that limitations in the claims on appeal, or at least some of the limitation in the claims on appeal, were construed in the patent infringement civil action between NTP and RIM in *NTP, Inc. v. Research in Motion, Ltd.*, Civil Action 3:01CV767, 2003 WL 23100881 (E.D. Va. Aug. 5, 2003). Further according to NTP, it is estopped from seeking a claim construction broader than that made by the Eastern District of Virginia ("E.D. Va."). Stated in other terms, NTP says it "is foreclosed from asserting [a broader claim construction] in the future." (Brief 18:8-10).

Essentially NTP maintains that since the E.D. Va. and the Federal Circuit on appeal have construed the claims, it is as if the construction fixed by the court had been incorporated into the specification. (Brief 18). NTP therefore reasons that the rule of *In re American Academy* has no application in this case, because in *American Academy* there had not been a prior district court interpretation of the claims.

In our view, NTP misapprehends the differences between (1) how claims are construed in litigation and (2) the underlying purpose of reexamination. The differences have been articulated by the Federal Circuit in *In re Swanson*, 540 F.3d 1368, 1377-78 (Fed. Cir. 2008) ((1) USPTO examination procedures have different standards, parties, purposes, and outcomes compared to civil litigation; (2) USPTO standard for rejecting is "preponderance of the evidence" which is substantially lower than in a civil case where standard is clear and convincing; and (3) claim construction in USPTO differs from the claim construction in civil litigation.).

NTP asserts that the claim construction of the E.D. Va. is binding on the USPTO in these reexaminations. We reject NTP's assertion. In support of its assertion, NTP cites a non-precedential Federal Circuit opinion in Marlow Industries, Inc. v. Igloo Products Corp., 65 Fed. Appx. 313, 318 (Fed. Cir. 2003) ("[i]n addition, the district court's two previous orders construing the '193 patent and concluding that picnic boxes that only cooled did not infringe the patent were binding on the examiner under the doctrine of issue preclusion."). (Brief 19). Apart from the fact that Marlow is nonprecedential, the Government was not a party in *Marlow* and therefore cannot be bound by statements in *Marlow* which may or may not be *dicta*. NTP's preclusion issue is foreclosed by In re Trans Texas Holdings Corp., 498 F.3d 1290, 1297 (Fed. Cir. 2007) (claim construction of patent undergoing reexamination by district court in action not involving the PTO is not binding on the PTO—there is no collateral estoppel). As the Federal Circuit succinctly put it: "This argument simply makes no sense." Id. See also Standard Havens Products, Inc. v. Gencor Industries, Inc., 953 F.2d 1360, 1366 n.2 (Fed. Cir. 1991).

There are additional policy reasons for adhering to the *Yamamoto* rule in these appeals.

First, all of the three ex parte reexaminations before us in this appeal were requested by a third-party. A third party cannot participate in an ex parte reexamination proceeding. However, in making the request, the thirdparty had an expectation (provided the USPTO found a substantial new question of patentability) that the USPTO would apply the "rules" to the reexamination. Had the third-party understood that the USPTO would

change those "rules" in the middle of the ex parte reexamination proceeding, the third-party may not have filed the ex parte reexamination request in the first place. Third-parties and the public have an expectation that the USPTO will adhere to the "rules" and "practices" in performing its congressionally assigned duties. NTP's proposed claim construction would undermine public confidence in the ex parte reexamination process.

Second, there is no meaningful adverse consequence in amending the claims in these appeals. If, as NTP asserts, the claims on appeal are to be construed in accordance with the interpretation of the E.D. Va., then what is the harm in amending the claims to conform to that interpretation. Assuming NTP is correct that it is precluded from arguing an interpretation broader than the interpretation of the E.D. Va., why should other potential defendants have to re-litigate claim interpretation (as they have a right to do) and why should another district court (or even the same district court) have to spend resources re-considering claim interpretation. In an ideal world, claims should say precisely what they mean and need for interpretation (both in the USPTO and the courts) should be minimized. Under the circumstances presented to us, NTP could have avoided the entire claim construction issue in the first place if it simply had amended the claims to explicitly incorporate therein the claim interpretation of the E.D. Va. Had NTP done so, the *explicit* definition of the invention defined by the claims on appeal would be exactly the same as the *implicit* definition assigned to the claims by the E.D. Va. The place to take care of any possible ambiguity in a claim is during proceedings in the USPTO—in this case during reexamination. Cf. In re Zletz, 893 F.2d 319, 322 (Fed. Cir. 1989) (an

essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous; only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process).

We have not overlooked the fact that NTP is of the opinion that the claim interpretation of the E.D. Va. is the broadest reasonable interpretation. NTP reasons, therefore, that there was no need to amend claims during the reexamination proceedings before the USPTO. In taking the approach it did, NTP made a litigation choice to run a risk that the USPTO would not interpret claim language broader than the E.D. Va. To the extent that the USPTO interprets claim language broader than the E.D. Va., NTP now lives with its litigation choice.

Even if the invention disclosed in an applicant's written description is outstanding in its field, it is still the case that "the name of the game is the claim." *In re Hiniker*, 150 F.3d at 1369 (citing Giles Sutherland Rich, *Extent of Protection and Interpretation of Claims -- American Perspectives*, 21 Int'l Rev. Indus. Prop. & Copyright L. 497, 499 (1990)). It is the claims on which we focus, not the disclosed embodiments and examples, in determining whether the claimed invention is novel and patentably distinct from the prior art.

In a reexamination proceeding such as this, as it is in all patent examinations before the U.S. Patent and Trademark Office, claim terms are read and interpreted according to their broadest reasonable construction consistent with the specification. *E.g., In re American Academy*, 367 F.3d at 1363; *In re Yamamoto*, 740 F.2d at 1571.

At the very least, the rule of broadest reasonable interpretation precludes importation into the claims of an "extraneous limitation" from the specification. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). A limitation is extraneous if there is no need for its inclusion in the claim for the claim to have a reasonable meaning. *See, id.*; *E.I. du Pont de Nemours* & *Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988). As the Court of Appeals for the Federal Circuit has clearly stated in *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004):

[T]his court counsels the PTO to avoid the temptation to limit broad claim terms solely on the basis of specification passages. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989). Absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition. *See, e.g., Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906-09 (Fed Cir. 2004)(explaining requirement for an express disclaimer in either the specification or prosecution history).

Although claims are interpreted in light of the specification, "particular embodiments and examples appearing in the specification will not generally be read into the claims." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)("A reading of the specification provides no evidence to indicate that these limitations must be imported into the claims to give meaning to disputed terms."). Where the specification sets forth no definite requirement of a specific limitation for a claim term, that limitation should not be read from the specification into the claims. *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 987 (Fed. Cir. 1988). In *Lemelson v. United States*, 752 F.2d 1538, 1552 (Fed. Cir. 1985), the Court of Appeals for the Federal Circuit stated:

In *Fromson v. Advance Offset Plate, Inc.*, this court cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification. 720 F.2d at 1568, 219 USPQ at 1139 (citing *Smith v. Snow*, 294 U.S. 1, 11, 55 S.Ct. 279, 283, 79 L.Ed. 721 (1935)). Even if the specification only discloses apparatus directed to executing automatic prepositioning of the workpiece or the measurement device or both, this does not dictate reading such a limitation into the prepositioning step of the claim.

Thus, even if the specification discloses only one embodiment or implementation for a claim element, it is not reason enough to read all the requirements of that embodiment or implementation into the claims. As the Supreme Court stated in *McCarty v. Lehigh Valley R. Co.*, 160 U.S. 110, 116 (1895):

[I]f we once begin to include elements not mentioned in the claim in order to limit such claim . . . , we should never know where to stop.

We are cognizant that a patent applicant through the specification can be its own lexicographer in redefining the meaning of a known term in the art to something else. But the special definition must be set out in the specification, *In re Paulsen*, 30 F.3d at 1480; *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). Also, the defining must be done with "reasonable clarity, deliberateness, and precision." *In re Paulsen*, 30 F.3d at 1480. Thus, unless the specification is clear in setting forth a limiting definition or disclaiming a broader coverage for a claim term, examples and preferred embodiments disclosed in the specification are regarded as just that, *i.e.*, examples and preferred embodiments, and not as restrictive limitations.

Based on the description in the specification of the NTP '670 patent, the inventors do not purport to be their own lexicographer in setting forth a new and more restrictive definition for any word or term already known in the art. When asked by the panel about this issue during oral hearing, NTP's counsel failed to identify any special or restrictive definition which has been set forth in the specification for any claim term. Pertinent portions of the exchange between the panel and counsel are reproduced below (Hearing Transcript 34:15 to 37:6):

JUDGE LEE: Along that line, has any one of your inventors acted as his own lexicographer and coined a term with a special definition that's not otherwise known to people in the art in any one of your eight patents?

MR. BUROKER: Well, I believe that that's what the district court found in a number of instances.

The term "gateway switch" can mean a lot of things in different contexts but in the context of this particular patent, it means the definition we have given, which is that it is one of the processors in an electronic -- a processor in an electronic mail system which connects other processors in that system, et cetera.

But that's an example of a situation which we think they weren't using the term generically, they were using it specifically to talk about --

JUDGE LEE: Well, it doesn't depend on any district court. It is did your inventors try to coin the new term and define it in your spec.

You know, there are case law that says inventors can come up with their own terms whenever they like as long as

> they put their own definition in the spec. I'm just trying to find out do we have that situation here.

> MR. BUROKER: Well, I think "gateway switch" is one of those situations in which that's what they tried to do. Does it say gateway switch means X and give a definition? They didn't go that far but we believe that that's what the meaning of that term is in the particular specification in the way in which it is used in the claims.

> JUDGE LEE: So I'm not sure how to take that. It should be an easy yes or no. Yes, our inventors coined a new term with a new definition or, no, they used terms that were known in the art. Is that too unreasonable to ask for a yes or no answer?

MR. BUROKER: Well, in the context of this invention, gateway switch couldn't have been known in the art. That's the point. The gateway switch is acting in a new capacity. There were -- there were gateway switches because that term is in the background section but here the gateway switch is described as having additional functionality. So I guess it is a yes and a no. That's the hard --

JUDGE LEE: Well, that's my problem, too. Since -- but according to case law, in order to be your own lexicographer, you have to clearly define the meaning of the term and I don't find that in your spec.

MR. BUROKER: For any of the terms?

JUDGE LEE: The definition. Yes.

MR. BUROKER: Well, I disagree with that. For most of the terms, there's clear understanding given. Electronic mail system is one. There is an explanation of what an electronic mail system is. There is a description of what --

> JUDGE LEE: Let's take gateway switch, for instance. I mean, of course, anyone reading it could speculate the inventors probably meant this but I think the kind of clarity the federal circuit has required for coining your own term is a lot more specific than that.

MR. BUROKER: Well, I read the case law, I guess, a little differently. Certainly, if they had gone to the extent of saying gateway switch -- the definition of gateway switch is X, that would mean they are being their own lexicographer.

There are other circumstances in which the court finds the same thing based upon the circumstances of the disclosure and this is one of them, we believe, that, you know, there is a specific definition for what a gateway switch is. It is a -- it is a switch in a gateway -- in an electric mail system in this particular patent.

JUDGE LEE: Because I can easily say, well, that's just an example the inventors offer for a gateway switch and not say that, you know, whatever examples you gave, that had to be it, that had to be the definition, so where do we draw the line?

When we see something offered as an implementation of gateway switch, how do we know -- well, is that just an example or is that what the inventors are saying that's the definition for my gateway switch and, it can't be anything else than that?

MR. BUROKER: Well, in a re-examination, my understanding is you are supposed to come up with the broadest reasonable interpretation in view of the specification.

I believe in almost every instance and I believe every instance where it is used, it is described in the same way as having mailboxes that operate to store e-mail for the various

users that are subscribers and that it then routes them onto other gateway switches or to other networks.

That's the definition that's been given by the district court and that we are adopting in this particular case. (Emphasis added.)

Using the claim term "gateway switch" as an example, NTP's counsel, Mr. Buroker, acknowledged that the inventors did not go so far as to set forth any "definition" in the specification. Despite having an opportunity to do so, Mr. Buroker did not identify any definition which has been set forth in the specification for any claim term. Yet, it is argued that there are definitions which make the inventors their own lexicographer. Counsel was referring to the definitions NTP now seeks to have adopted in this case, rather than any which are identified or provided in the specification. The position adopted by NTP abuses the principle of one's being his or her own lexicographer. As is already discussed above, the inventors' special definitions must be set out in the specification. A litigation position taken or otherwise agreed to after issuance of the involved patent does not an inventor's own lexicographer make.

As quoted above, NTP's counsel explained during oral hearing that NTP has described in its specification a gateway switch that is said to have additional functionalities than known types of gateway switches. That, however, does not cause prior art types of gateway switches to cease to be gateway switches. If NTP wanted the term "gateway switch" to cover only the specific gateway switch implementation, the one with additional functionalities as is described in the specification, NTP was free to make a clear and deliberate limiting definition in the specification. It did not do so.

Similarly, although NTP's specification describes electronic mail messages containing only formatted text and having four parts: (a) destination address, (b) indication of sender, (c) a subject field, and (d) inputted message text, that description does not cause preexisting electronic mail messages containing only images and graphics and no text to cease to be electronic mail messages. Nor does it cause electronic mail messages which do not disclose sender information or which do not include a subject field to not be electronic mail messages.

NTP would like to have us treat mere description in the specification, without any kind of express disclaimer of broader coverage, as limiting restrictions for what is claimed. For reasons discussed above, NTP's position is without merit, certainly where the principle of broadest reasonable interpretation is applied for construing claims. Note also that the patent statute provides one instance in which a claim element can rightfully be limited to what is disclosed in the specification and equivalents thereof, without need to recite the disclosed elements in the claim. See 35 U.S.C. $\S 112 \P 6$:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

However, none of NTP's claim elements at issue is expressed as a means or step plus function element and NTP makes no such argument in its brief.

During oral hearing, NTP's counsel made the assertion that for each claim term in dispute, the corresponding disclosure in the specification

should be treated as a limiting definition for the term rather than an example (Hearing Transcript 52:26 to 53:9):

JUDGE LEE: Well, sometimes you say example and sometimes you try to take it back, so is it -- is it only an example or is it a limiting definition for an e-mail?

MR. BUROKER: In this particular case, it is a limiting definition for an e-mail.

JUDGE LEE: And you would say that for every other term that's in dispute here, that in every instance what you disclose in the spec is a limiting definition for the term that appears in the claim and not an example of what falls within the claim?

MR. BUROKER: I would have to look because there is about 30 some terms but I believe that's the case.

The assertion is remarkable because as is already explained above, (1) counsel could point to no limiting definition in the specification for any claim term, (2) NTP did not use means or step plus function language sanctioned by the sixth paragraph of 35 U.S.C. § 112, for limiting a claim element to what is disclosed in the specification and equivalents thereof, and (3) during reexamination, the broadest reasonable interpretation rule applies. NTP's argument is rejected. We will regard embodiments disclosed in the specification as preferred embodiments and examples, and not as restrictive limitations for what is claimed.

For instance:

1. The claim term "RF receiver" does not require a device which can be carried by a person outside a home or office. The term simply carries no such mobile or portable limitation. Any receiver that receives radio

frequency signal, whether or not it is small enough to be carried by a person, meets the claim term.

2. The claim terms "RF information transmission system" and "RF information transmission network" do not require more than one radio frequency transmitter and do not require any minimum geographic coverage area. The terms simply carry no such number and size requirement. Any system that transmits information by radio frequency signals meets the claim term. A network covers an area including more than one location.

3. The claim term "electronic mail system" does not require a plurality of processors each running electronic mail programming. A processor placing an electronic mail message on a transmission mechanism capable of delivering the message to the intended recipient constitutes an electronic mail system, one that sends electronic mail. A processor capable of receiving from a transmission mechanism an electronic mail message intended for it constitutes an electronic mail system, one that receives electronic mail. A transmission mechanism capable of routing an electronic mail system, one that transmission mechanism capable of routing an electronic mail system, one that receives electronic mail. A transmission mechanism capable of routing an electronic mail system, one that transmits or routes electronic mail. Any multiple or combination of the above also constitutes an electronic mail system. The term is broad and reads on any aspect of the processing or handling of electronic mail.

Our interpretation is not inconsistent or incompatible with any example illustrated in NTP's specification. That NTP's specification describes an electronic mail system which composes, sends, routes, and receives electronic mail transmitted between originating and destination

processors does not mean that a system which performs just one of those functions would not be an electronic mail system. Any system which performs an important function with regard to electronic mail is reasonably deemed an electronic mail system. For example, that constituent processors in an electronic mail system typically both send and receive electronic mail does not mean each processor necessarily must both send and receive electronic mail.

4. The claim terms "interface" and "interface switch" do not require a processor that transmits electronic mail messages to a wireless system for delivery to a mobile processor which can be carried by a person outside of a home or office and which executes electronic mail programming to function as a destination and/or source of electronic mail. An interface, when broadly construed within reason, is a structural connection or device between two or more systems, devices, or component parts through which information may pass from one side to the other. That broad interpretation is not inconsistent or incompatible with any example illustrated in NTP's specification. There simply is no requirement on what must be in the system on one side of the interface and what must be in the system on the other side of the interface.

5. The term "originated information" is not an established term of art. In the context of the specification of NTP's '670 patent, which is about wireless RF transmission of electronic mail, the claim term "originated information" identifying that information transmitted from an originating processor in an electronic mail system means electronic mail or electronic mail message.

According to NTP (Brief 26:1-10), "originated information" means the text portion of electronic mail or electronic mail message, and electronic mail or electronic mail message necessarily includes all of these four parts:

(a) a destination address identifying the persons, places, or objects to which the message is directed;

- (b) an indication of the sender;
- (c) a subject field; and
- (d) the inputted message text.

We disagree. Electronic mail or electronic mail message does not have to include all four of the above-identified parts.

Item (a) is the only necessary element of the four for constituting electronic mail or electronic mail message. An electronic mail system could be one which does not transmit sender information or add sender information to the electronic mail message, in which case the electronic mail would not include an indication of the sender. An electronic mail system could be one which does not support a subject field in the electronic mail, in which case the electronic mail would not include a subject field. An electronic mail could be blank and have no informational content other than envelope type information and any attached file, in which case the electronic mail would not include inputted text. We see no reason why one with ordinary skill in the art would regard as absolutely necessary that electronic mail must reveal the sender, include message text, and have a subject field. Those components are useful if included in electronic mail but are not necessary.

Note that in the specification of NTP's '670 patent (Spec. 2:63 - 3:15), the four above-identified items are described only as "several common items" that must be entered to send an electronic mail message. The "common" description implies only a general observation and does not express a necessary condition for composing and sending a message. That usually all four items must be present does not set forth a requirement that all four items must be present in all circumstances at all times.

Restricting the meaning of the claim term "originated information" to only the inputted text portion of electronic mail or electronic mail message, as contended by NTP, is unduly narrow. We do not adopt that limiting interpretation.

6. The claim term "gateway switch" does not require a processor in an electronic mail system which connects processors in that system and which has additional functions for supporting other aspects of an electronic mail system such as receiving, storing, routing and/or forwarding electronic mail messages. An interface which provides controlled entry of information into a separate system, device, or another system component reasonably constitutes a gateway switch. That interpretation is not inconsistent or incompatible with any example illustrated in NTP's specification. There is no requirement on what must be on one side of the gateway switch, what must be on the other side of the gateway switch, and what specifically must pass through the gateway switch. It is also not necessary that a gateway switch must implement a certain kind of electronic mail programming for creating electronic mail messages of any specific type.

7. We partially agree with NTP's assertion that the claim term "originating processor" is a processor which initiates the transmission of electronic mail message text into an electronic mail system and is separate from a gateway or interface switch. Because "originated information" is not limited to the inputted message text portion of electronic mail, an "originating processor" is similarly not so limited. An "originating processor" is, however, separate from a gateway or interface switch.

An "originating processor" need not be either a part of or outside of an electronic mail system or be able to process electronic mail programming. The processor from which an electronic mail message first originates to travel on a transmission route to the intended recipient is the originating processor. Adding limitations regarding the processing of electronic mail programming and relationship to an electronic mail system is not necessary to make sense of the term.

10. A "destination processor" need not be a part of an electronic mail system or able to process electronic mail programming beyond simply having the capability to receive electronic mail. It does not have to be identified by an address which initiates transmission of information from the originating processor. It does not have to be a desktop or notebook computer. Adding limitations regarding the processing of electronic mail programming and relationship to an electronic mail system is simply not necessary to make sense of the term "destination processor." A destination processor is a processor at a location in the route of transmission of an electronic mail message where reception of the message constitutes completion of transmission and where the intended recipient can view the

message at that location, whether or not the processor is within an electronic mail system or able to process electronic mail programming. At that location, the transmitted message is made available at the destination processor for viewing by the intended recipient without need of further transmission. A processor located at an intermediate location where physical access by the intended recipient is not available is not a destination processor. This interpretation is based on the plain meaning of the word "destination" and is fully consistent with how the term "destination processor" is used in NTP's specification.

The only processors referred to as a "destination processor" in the specification of NTP's '670 patent as filed are end node processors A-N and end node portable personal computers illustrated in Figures 1 and 8. Gateway switches and interface switches, which are intermediate nodes in the electronic mail transmission process are not ever referred to as destination processors. Furthermore, the terms "gateway switch" and "interface switch" are used, throughout the specification of NTP's '670 patent as filed, in the same sentence in which the term "destination processor" appears and is used to identify an end node processor A-N or an end node portable personal computer. For example, the specification states in column 25, lines 22-28:

The information is transmitted from the receiving interface switch 304 to the RF information transmission network with an address of the destination processor, such as a name of a user of the destination processor A-N, to receive the information which has been added by either the originating processor A-N, a gateway switch 14 or the receiving interface switch 304.

The term "destination processor" is used in the specification of NTP's '670 patent as filed to describe that particular end node device to which the intended user recipient of electronic mail has immediate and direct physical access when accessing and viewing electronic mail. For instance, the specification of the '670 patent states in column 3, lines 29-47:

Upon arrival of the information at the destination processor's gateway switch with mailboxes 14, one of two events take place. The information is typically stored in the destination processor's electronic mailbox [located at a gateway switch at some other location] for later retrieval by the destination processor... This typically happens as a result of the fact that a person is not located at the destination processor at the time of delivery of the message to the gateway switch with mailboxes 14 or the destination processor is not turned on and connected to the public switch telephone network 12.... In the situation where the destination processor is within a company or organization, the information may be delivered to the host computer. The destination processor's host computer stores the information until the destination processor calls the host computer to retrieve the information.

The physical link between the destination processor and the intended user recipient of electronic mail is evident from the specification of NTP's '670 patent as filed.

Reading the claim term "destination processor" onto intermediate nodes such as the gateway switch 14 or interface switch 304 derives no support from NTP's specification as filed and is unreasonable.

We have not overlooked the declaration testimony of Dr. V. Thomas Rhyne relied upon in NTP's appeal brief in support of NTP's position on claim interpretation, *i.e.*, Supplemental Declaration of Dr. V. Thomas Rhyne under 37 C.F.R. § 1.132 (A12)(February 13, 2006) ("Rhyne Supplemental

Declaration") and Exhibit A attached thereto ("Rhyne Claim Constr. Dec.")(January 24, 2006). We decline, as did the Examiner, to credit Dr. Rhyne's testimony as it does not address our concerns as discussed above. Dr. Rhyne has taken a misplaced approach to claim interpretation by regarding what is described in the specification as restrictive claim limitations, without identification of any clearly limiting definition or disclaimer of broader coverage. Dr. Rhyne has read each disputed claim term onto the disclosure, *i.e.*, identified what NTP has disclosed in the patent specification which satisfies or meets the claim term. But that is no basis to limit what is claimed to what is specifically disclosed.

B. Anticipation rejection based on Cole

Claims 1-4, 8, 24, 28, 34, 38, 57-60, 64, 80, 84, 90, 95, 113-116, 119-122, 125-128, 131-134, 173, 174, 177, 181, 182, 185, and 186 were finally rejected under 35 U.S.C. § 102(b) as anticipated by Cole.

We affirm.

Issue

Has NTP shown that the Examiner incorrectly determined that claims 1-4, 8, 24, 28, 34, 38, 57-60, 64, 80, 84, 90, 95, 113-116, 119-122, 125-128, 131-134, 173, 174, 177, 181, 182, 185, and 186 are anticipated by Cole?

Findings of Fact

Of all NTP claims rejected as anticipated by Cole, the independent claims are claims 1, 57, 113, 119, 125, 131, 173, 177, 181 and 185. Independent claim 1 is reproduced below:

1. A system for transmitting information from one of a plurality of originating processors contained in an electronic mail system to at least one of a plurality of destination

processors contained in an electronic mail system with the information including originated information originating from one of the plurality of originating processors and being transmitted by a RF information transmission network to at least one of the plurality of destination processors and other originated information originating from one of the originating processors is transmitted with the electronic mail system wthout using the RF information transmission network to at least one of the destination processors comprising:

at least one interface, one of the at least one interface connecting the electronic mail system containing the plurality of originating processors to the RF information transmission network; and wherein

the originated information is transmitted in association with an address of the one interface from the one of the plurality of originating processors to the one interface with the electronic mail system responding to the address of the one interface to direct the originated information from the one of the plurality of originating processors to the one interface; and

the originated information is transmitted from the one of the at least one interface to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information being added at the originating processor originating the originated information, or by either the electronic mail system that contains the plurality of originating processors or the one interface.

Cole discloses a communication system which adds to and expands on a preexisting electronic mail system (X.400 Model) which supports transmission of electronic mail between wired computers, and the objective is to provide the ability to send electronic mail wirelessly to and from portable and mobile computers by use of cellular telephone technology.

(Cole 249:1:1-5 and 19-31; 250:1:9-25; 250:2:7-8; Figures 1 and 3). Figure 1 of Cole illustrates the broad conceptual model and is reproduced below:

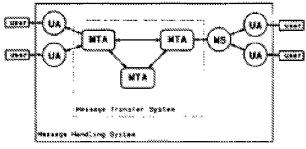


Fig. 1. X.400 system model.

As is shown in Cole's Figure 1, the core of Cole's Message Handling System is a network of interconnected MTAs forming a Message Transfer System (MTS). An MTA is a Message Transfer Agent, a computer that routes and relays electronic mail messages. (Cole 250:1:15-16). A User Agent (UA) is a processor interface between an actual human sender or recipient of electronic mail and the Message Transfer System. (Cole 250:1:26-28). The UA allows a human user to create electronic mail messages and submit them to the MTS, and to collect electronic mail messages from the MTS and present them to the user recipient. (Cole 250:1:28-30).

Cole discloses that a number of User Agents are attached to one MTA. In the case where a UA is not always available, such as one using a mobile link, a Message Store (MS) is provided to hold the messages intended for that UA. (Cole 250:1:30-36).

Cole's Figure 1 is a broad level conceptual illustration and not an engineering blue print. What it shows, in light of the other description in Cole's disclosure as mentioned above, is that the MTAs are interconnected and each MTA may have its own group of local User Agents. In the case where local UAs of a MTA include one or more portable or mobile computer using a wireless mobile link, a message store MS would be provided. Thus, the User Agents associated with each MTA can include wired computers as well as wirelessly connected portable and mobile computers.

Figure 3 of Cole is reproduced below, which illustrates a MTA's (1) connection to a LAN (Local Area Network) connecting to local components, (2) connection to a wireless network relay providing a wireless cellular radio link to a mobile User Agent, and (3) connection to a wide area network through a X.25 SERVICES line:

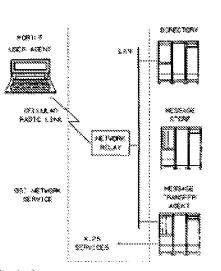


Fig. 3. Components of the secore stabile read system.

The point of Cole's Figure 3 is to illustrate the three types of network connections: (1) LAN, (2) wireless, and (3) wide area network. It does not mean only a single User Agent is connected to the MTA shown. Cole expressly states that "[a] number of User Agents will be attached to one MTA." (Cole 250:1:21-22). It is implicit that there may be other portable and mobile computers connected through the cellular telephone network, and that there may be multiple wired UAs connected to the MTA.

Thus, three networks are provided in the communication system of Cole: (1) a wide area network labeled as "X.25 SERVICES" which connects a MTA to other MTAs; (2) a Local Area Network LAN which connects an individual MTA to local components; and (3) a cellular radio telephone wireless connection to mobile UAs. (Cole 253:2:25-30).

Cole does not state that the local wired UAs are connected through the LAN to the MTA. That configuration is not inherent. Thus, local wired UAs are not necessarily connected to the LAN. However, Cole nonetheless still discloses that there may be wired UAs connected locally to each MTA, regardless of whether the connection is through the LAN.

Analysis

With regard to independent claims 1, 57, 113, 119, 125, and 131, NTP's arguments are the same. With regard to independent claims 173, 177, 181, and 185, NTP makes all the arguments it asserted for the other independent claims, and adds one more argument based on the requirement in claims 173, 177, 181, and 185 for a plurality of electronic mail systems. We will address the argument common to all claims, and then the separate argument directed to independent claims 173, 177, 181, and 185.

According to NTP, Cole does not disclose an interface connecting an electronic mail system containing a plurality of originating processors to an RF information transmission network, a limitation common to all independent claims subjected to the anticipation rejection over Cole.

The argument is without merit.

NTP states that Cole's User Agents cannot individually be an "electronic mail system" and that groups of User Agents also cannot by themselves be an "electronic mail system" because something needs to provide the communication between them and that would have to be an MTA. (Brief 30:3-8). NTP further argues that even if, hypothetically, one were to regard the combination of an MTA and its User Agents as the "electronic mail system," there would be no interface between the electronic mail system and the RF information transmission network because the only wireless network disclosed in Cole is one between User Agents and MTA's. (Brief 30:9-16). NTP also states that the wide area network X.25 is not an "electronic mail system," and that even if it is an electronic mail system, no interface connects it to the cellular telephone system. (Brief 30:17-21).

NTP's arguments are either misplaced or just incorrect. Cole does disclose an interface which connects an electronic mail system which includes a plurality of originating processors to an RF information transmission network.

Take, for example, the diagram shown in Cole's Figure 1, which is again reproduced below:

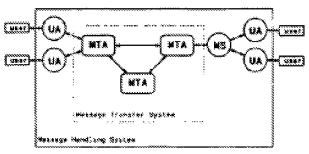
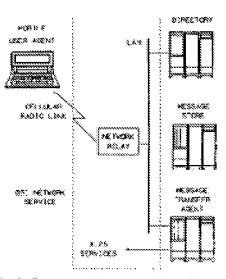


Fig. 1. X.400 system model.

The left-most MTA with its own UAs constitutes an electronic mail system including a plurality of originating processors. The UAs in that MTA can send electronic mail to each other through that MTA. Therefore, the MTA and its local UAs constitute an electronic mail system, and the UAs are originating processors contained in that electronic mail system.

The right-most MTA serves as an interface between the electronic mail system represented by the left-most MTA and its local UAs and an RF information transmission network. The right-most MTA and its attachments are shown in Figure 3, which is again reproduced below:



25

Fig. 3. Components of the secure mobile mail system.

As is shown in Figure 3, the right-most MTA connects to a cellular radio link through the network relay. The cellular radio link is the RF information transmission network.

Accordingly, NTP's arguments are unpersuasive in showing that the Examiner was incorrect in determining that Cole discloses an interface connecting an electronic mail system containing a plurality of originating processors to an RF information transmission network.

NTP also argues that Cole nowhere discloses that the originated information "is transmitted in association with an address of the one interface." The argument is not persuasive because NTP does not address and discuss the Examiner's rationale and reasoning in support of the determination that Cole does disclose the claimed feature.

Specifically, the Examiner explained: "Since Cole teaches a TCP/IP based system, any originating information i.e. email packets sent to the

interface are done so using the IP address of the interface." (Final Office Action 11:14-16). In support of that determination, the Examiner also cited to various documents which describe the TCP/IP protocol. (Final Office Action 11:27-37). The Examiner further explains that according to standard TCP/IP protocol, a node in the path of transmission addresses the next node in the chain when sending a transmitted message to its final destination. (Answer 105:17-18).

NTP has not addressed the Examiner's stated rationale. NTP has not shown that under TCP/IP protocol originated information is not transmitted in association with the address of an interface which constitutes an intermediate node. Simply disagreeing with the Examiner's conclusion does not establish error in the rejection on appeal. Note also that the claim feature at issue requires only that the transmission of originated information be in association in some way with the address of the interface and not that the address of the interface be added to the originated information either at the time of departure from the originating processor or later. NTP's witness, Dr. Rhyne, is incorrect in treating the interface address as something which must be included in the originating information as it leaves the originating processor. (Rhyne Declaration ¶ 23).

In its reply, NTP argues that even assuming that the transmission of originated information to the interface is in association with the address of the interface as a part of an intermediate transmission step, that does not mean the originated information is transmitted "from" an originating processor in association with the address of the interface. (Reply Brief 23:9-13). We understand the argument as meaning that the very first step that

occurs as the information leaves the originating processor has to be in association with the address of the interface. The argument is not commensurate in scope with what has been claimed.

The claim feature at issue is only that the originated information is transmitted in association with an address of the interface. The Examiner is correct that so long as the address of the interface is involved somewhere during the path of transmission of the originated information the claim feature is met. (Answer 105:11-15). The Examiner is also correct that the claim limitation does not require the address of the interface be a part of the originated information as that information leaves the originating processor. (Answer 105:7-11).

Similarly, NTP argues (Brief 31:17-22) that there is nothing to suggest that an originating processor in Cole could address a message to a MTA which serves as an interface, and that Cole actually teaches away from that by stating that all messages are addressed to the User Agent of the recipient user. That argument is also not commensurate in scope with what is claimed. The claim feature at issue only requires transmitting the originated information "in association" with an address of the interface and does not require the originating processor to address the message to the interface. There is nothing inconsistent between the originating processor's addressing the originated information to the User Agent of the recipient user and the originated information being transmitted in association with an address of the interface while on route to the User Agent of the recipient.

NTP argues independent claims 173, 177, 181, and 185 separately from the rest of the independent claims. With regard to independent claims

173, 177, 181, and 185, NTP argues that Cole does not disclose a plurality of electronic mail systems. According to these claims, the originating processor is one of a plurality of originating processors contained in any one of "a plurality of electronic mail systems."

NTP's argument is without merit. The assertion is not supported by the underlying facts or a reasonable rationale.

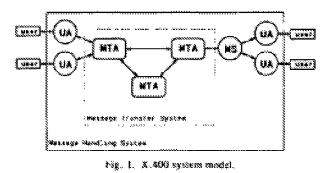


Figure 1 of Cole is again reproduced below:

As is earlier discussed, the originating processor is one of the UAs in the left-most MTA, and the left-most MTA together with its attached UAs collectively constitute one electronic mail system. There was no occasion to discuss the middle MTA. However, in the context of the requirement in independent claims 173, 175, 181, and 185 of a second electronic mail system, it is noted that the middle MTA together with its attached UAs constitutes a second electronic mail system just like the left-most MTA with its attached UAs. Although Figure 1 illustrates no UAs attached to the middle MTA, their existence is implied in light of the description in Cole, discussed above, that "[a] number of User Agents will be attached to one MTA." (Cole 250:1:21-22).

In any event, the right-most MTA together with its attached UAs also constitutes an electronic mail system, as is the case with the left-most MTA

with its attached UAs. Thus, either the left-most MTA and the middle MTA, together with their attached UAs, constitute a plurality of electronic mail systems, or the left-most MTA and the right-most MTA, together with their attached UAs, constitute a plurality of electronic mail systems. In either case, a plurality of originating processors is contained in one of the plurality of electronic mail systems, as claimed, and the right-most MTA is still an interface between an electronic mail system and an RF information transmission system, as claimed.

Dependent claims 2, 4, 8, 24, 28, 38, 58, 60, 64, 80, 84, 114, 115, 120, 121, 126, 127, 132, 133, 174, 182, and 186 have not been argued by NTP separately from the independent claim from which they depend, *i.e.*, one of independent claims 1, 57, 113, 119, 125, 131, 173, 181, and 185.

Dependent claims 3, 34, 38, 59, 90, 95, 116, 122, 128, and 134 have been argued by NTP separately from the independent claim on which they depend, *i.e.*, one of independent claims 1, 57, 113, 119, 125, and 131. Each of dependent claims 3, 34, 38, 59, 90, 95, 116, 122, 128, and 134 further specifies that the electronic mail system containing the plurality of destination processors is a different electronic mail system than the electronic mail system containing the plurality of originating processors.

With reference to Cole's Figure 1, the right-most MTA and its attached User Agents constitute an electronic mail system containing a plurality of destination processors (UAs). That electronic mail system is different from the electronic mail system constituted by the left-most MTA and its attached User Agents, which contain a plurality of originating processors (UAs). NTP argues that "each" MTA may not have an associated

LAN and cellular connections. The argument is misplaced. The claims do not require a LAN in any electronic mail system or any other claimed component, or an RF connection for every electronic mail system.

For the foregoing reasons, NTP has not shown error in the Examiner's rejection of claims 1-4, 8, 24, 28, 34, 38, 57-60, 64, 80, 84, 90, 95, 113-116, 119-122, 125-128, 131-134, 173, 174, 177, 181, 182, 185, and 186 under 35 U.S.C. § 102 as anticipated by Cole.

C. Anticipation rejection based on Telenor '89

Claims 1-6, 8-20, 23-26, 28-30, 33-36, 38-40, 43-62, 64-76, 79-82, 84-86, 89-92, 94-96, 99-276, and 555-606 were finally rejected under

35 U.S.C. § 102(b) as anticipated by Telenor '89.

We affirm-in-part.

The rejection of claims 1-6, 8-19, 23-26, 28, 29, 33-36, 38, 39, 43-62, 64-75, 79-82, 84, 85, 89-92, 94, 95, 99-137, 140, 143, 144, 146, 149, 152, 155, 158, 161, 164, 167, 170, 173-189, 192, 195, 198, 201, 204, 207, 210, 213, 216, 219, 222, 224-276, 555-566, and 571-606 under 35 U.S.C. § 102(b) as anticipated by Telenor '89 is *affirmed*.

The rejection of claims 20, 30, 40, 76, 86, 96, 138, 139, 141, 142, 145, 147, 148, 150, 151, 153, 154, 156, 157, 159, 160, 162, 163, 165, 166, 168, 169, 171, 172, 190, 191, 193, 194, 196, 197, 199, 200, 202, 203, 205, 206, 208, 209, 211, 212, 214, 215, 217, 218, 220, 221, 223, 224, and 567-570 under 35 U.S.C. § 102(b) as anticipated by Telenor '89 is *reversed*.

NTP asserts that the copy of Telenor '89 relied on by the Examiner contains content which has been altered and manipulated and therefore the copy not authentic and cannot be relied on to support any rejection based on

Telenor '89. In Section H of this opinion we address the argument and evidence on that issue. We conclude that the Examiner properly relied on the copy of Telenor '89 contained in the record.

NTP also asserts that Telenor '89 does not qualify as a printed publication under 35 U.S.C. § 102(b) because one with ordinary skill in the art would not have located the document despite an exercise of reasonable diligence. In Section H of this opinion we also address the argument and evidence on that issue and reject NTP's argument. We conclude that Telenor '89 is a printed publication under 35 U.S.C. § 102(b).

Issue

Has NTP shown that the Examiner incorrectly determined that claims 1-6, 8-20, 23-26, 28-30, 33-36, 38-40, 43-62, 64-76, 79-82, 84-86, 89-92, 94-96, 99-276 and 555-606 are anticipated by Telenor '89?

Findings of Fact

Of all NTP claims rejected as anticipated by Telenor '89, the independent claims are claims 1, 57, 113, 119, 125, 131, 173, 177, 181 and 185. For this anticipation rejection, claim 57 is representative and reads as follows:

57. A method for transmitting information from one of a plurality of originating processors contained in an electronic mail system to at least one of a plurality of destination processors contained in an electronic mail system with the information including originated information originating from one of the plurality of originating processors and being transmitted by a RF information transmission network to at least one of the plurality of destination processors and other originated information originating from one of the originating processors is transmitted with the electronic mail system

without using the RF information transmission network to at least one of the destination processors comprising:

connecting the electronic mail system containing the plurality of originating processors to the RF information transmission network with one of at least one interface;

transmitting the originated information in association with an address of the one interface from the one of the plurality of originating processors to the one interface with the electronic mail system responding to the address of the one interface to direct the originated information from the one of the plurality of originating processors to the one interface; and

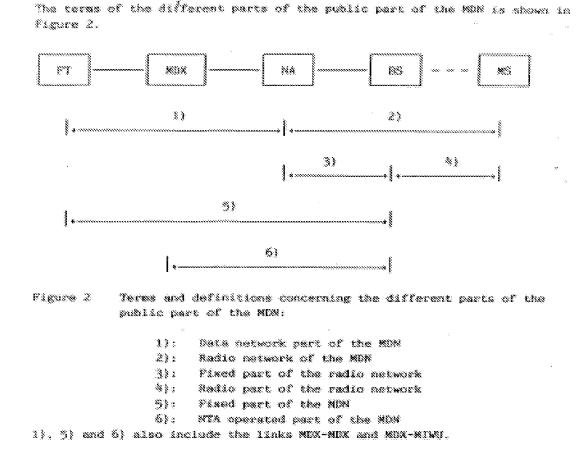
transmitting the originated information from the one of the at least one interface to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information being added at the originating processor originating the originated information, or by either the electronic mail system that contains the plurality of originating processors or the one interface.

Telenor '89 discloses a system called Mobile Data Network (MDN) which transfers messages between fixed terminals and mobile stations on a store-and-forward basis. (Telenor '89, Vol. 1, Preface).

Telenor '89 discloses that the MDN may also be connected to a separate Message Handling System (MHS). (Telenor '89, Vol. 1, Preface). Telenor '89 also discloses that a MIWU (MHS InterWorking Unit) is responsible "for the interwork between MDN and a public MHS service" and that "communication between an MDN subscriber and a MHS user may be routed over any of the existing MIWUs." (Telenor '89, Vol. 1, p. 6, ll. 1-4).

In the MDN architecture, the terminals are up to 100,000 mobile stations (MS) and up to 5,000 fixed terminals (FT), and the network nodes are: 1 Operation and Management Center (OMC), up to 50 Mobile Data Exchanges (MDX), up to 500 Network Adapters (NA) each of which controls up to 50 Base Stations (BS), and up to 20 MHS Interworking Units (MIWU). (Telenor '89, Vol. 1, p. 2).

Figure 2 of Volume 1 of Telenor '89 is reproduced below, which presents in a simple illustration which part of the MDN is the fixed wirelined portion and which part of the MDN is a radio network:



As is shown above, the wireless portion is that segment from a base station BS to a mobile station MS, based on radio transmission. The radio

network has a wired portion extending from a network adaptor NA to a base station BS. Telenor '89 also describes that the radio network of the MDN is assumed to be a cellular system. (Telenor '89, Vol. 1, Preface).

In the MDN architecture, each MDX and network adapter NA is connected to every other MDX and NA in the system. (Telenor '89, Vol. 1, p. 7, ll. 1-5). Figure 5 of Volume 1 of Telenor '89 illustrates that structure and is reproduced below:

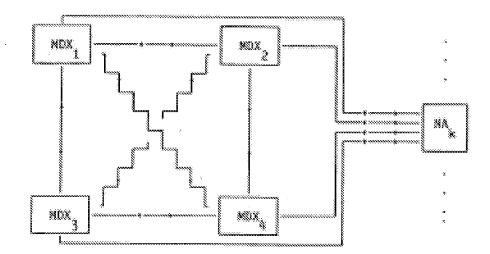


Figure 5. An MDN of 4 MDNs will be interconnected in a mesh network. Each NA will be connected to every MDN.

Each Network Adaptor NA is in turn connected by wire to up to 50 location areas (LCA) each of which may comprise up to 20 base stations (BS) which transmit messages to mobile stations by radio communication. (Telenor '89, Vol. 1, p. 4, ll. 1-4). Figure 3 of Volume 1 of Telenor '89 illustrates that arrangement and is reproduced below:

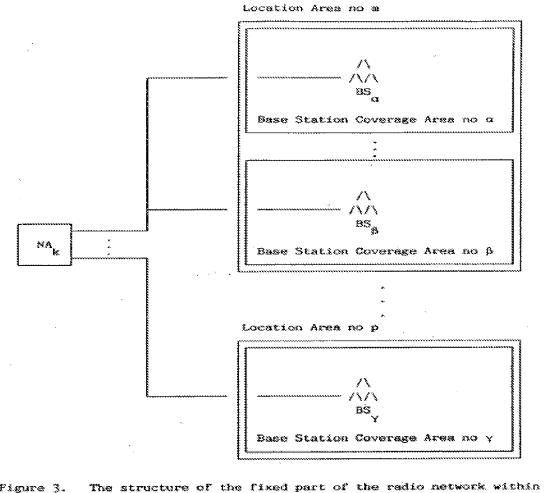


Figure 3. The structure of the fixed part of the radio network withit the MDN.

Within the MDN architecture, each MIWU which connects the MDN to an external message handling system MHS is connected to every MDX, as is illustrated in Figure 6 of Volume 1 of Telenor '89, which is reproduced below:

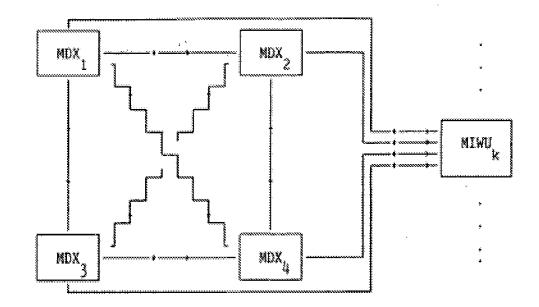


Figure 6. Each NIWU will be connected to every MDX of the network.

In the MDN, every user or terminal belongs to one and only one licensee and every licensee, including every subscriber of that license, is related to one and only one MDX, referred to as the Home-MDX (hMDX) of the licensee. (Telenor '89, Vol. 1, p. 8, ll. 12-23). Each fixed terminal FT is directly connected to only one MDX. (Telenor '89, Vol. 1, p. 8, l. 4).

In the MDN, an MDX is responsible for message switching in the sense of switching a message to the correct FTs, NAs, other MDXs, or MIWUs (Telenor '89, Vol. 1, p. 5, ll. 9-10), and a network adaptor NA is responsible for message switching in the sense of switching messages from a mobile station MS to the correct MDX, and from an MDX to the correct mobile station MS. (Telenor '89, Vol. 1, p. 5, ll. 17-24).

The message routing possibilities within the MDN is summarized by the following statement in Telenor '89, Vol. 1, p. 9, ll. 6-14:

- The only possible connections within the MDN will be the following:

Any FT (-) Home-MDX of that FT Any MDX (-> Any MDX Any MDX (-> Any MIWU Any MDX (-> Any MIWU Any NA (-> Any MS OMC (-> Any MIWU, MDX or NA

These connections are said to be the possible <u>communication links</u> of the MDN.

Each message transmitted in the MDN is divided into several fields, and Telenor '89 particularly describes the message fields in its Volume 3. (Telenor '89, Vol. 1, p. 17, ll. 12-15).

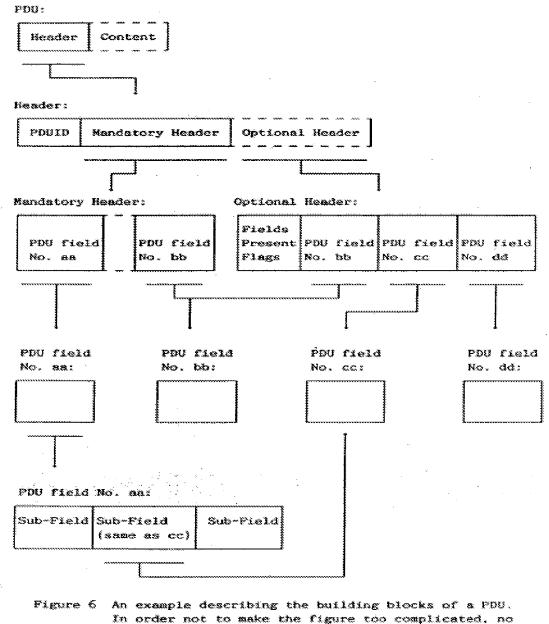
Telenor '89 uses the term Protocol Data Unit (PDU) to refer to the information being transferred between entities implementing a transfer protocol. (Telenor '89, Vol. 3, p. 2, ll. 2-3).

Telenor '89 describes that all PDUs, at all layers, contain a header portion and in most cases also a content portion. (Telenor '89, Vol. 3, p. 14, ll. 8-9). Figure 5 of Volume 3 of Telenor '89 illustrates the general layout of a PDU:

Figure 5 Overall layout of a PDU.

Telenor '89 describes that the header portion of a PDU is separated into three parts, a PDU type identifier, a Mandatory Header, and an Optional

Header. (Telenor '89, Vol. 3, p. 14, ll. 14-24). Figure 6 of Volume 3 of Telenor '89 illustrates that structure, and is reproduced below:



In order not to make the figure too complicate replicated PDU fields are shown.

Telenor '89 discloses that the PDU from an MDX to a FT has a content portion and has a mandatory header including a Unique Message

Identifier, the Originator Address, and the Recipient Address. (Telenor '89, Vol. 3, p. 30, ll. 6-19).

Telenor '89 discloses that the PDU from a FT to an MDX has a content portion, has a mandatory header including a Unique Message identifier and the Originator Address, and an optional header which includes the Recipient Address. (Telenor '89, Vol. 3, p. 31, ll. 1-21).

Telenor '89 discloses that the PDU from an MDX to a NA has a content portion and a mandatory header including a Unique Message Identifier, the Originator Address, and the Recipient Terminal's Address. (Telenor '89, Vol. 3, p. 32, ll. 1-32).

Telenor '89 discloses that the PDU from a NA to an MDX has a content portion, a mandatory header including a Unique Message identifier and Originator's Terminal Address, and an optional header including the Recipient Address. (Telenor '89, Vol. 3, p. 33, ll. 1-30).

Telenor '89 discloses that the PDU between MDXs and between an MDX and a MIWU has a content portion, a mandatory header including a Unique Message Identifier and the Originator Address, and an optional header including the Recipient Address. (Telenor '89, Vol. 3, p. 37, ll. 1-26).

Messages originating from an MHS and passed through to the MDN through a MIWU contain an envelope portion and a content portion. (Telenor '89, Vol. 8, p. 6, sec. 2.4.). The envelope information are data such as originator, recipient, content type, content length, and message identifier. (Telenor '89, Vol. 8, pp. 33-37, sec. 7.2).

Principles of Law

Anticipation under 35 U.S.C. § 102 requires that each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999).

Analysis

NTP collectively argues the merits of all independent claims 1, 57, 113, 119, 125, 131, 173, 177, 181 and 185.

1. Electronic Mail Message

NTP argues that the messages transmitted in the system of Telenor '89 have not been shown to constitute electronic mail messages. NTP's position is that an electronic mail message, in the context of NTP's specification, must include four parts: (1) a destination address identifying the person, place, or object to which the message is directed, (2) an indication of the sender, (3) a subject field, and (4) the inputted message text.

We have determined that an "electronic mail message" is not limited to the particular type and format of an electronic mail message as that used in NTP's disclosed embodiment. An electronic message that includes only the recipient's address still qualifies as electronic mail. The information contained in the headers of the messages from within the MDN, and the envelope information contained in the messages from a message handling system MHS communicating with the MDN through a MIWU, qualify the messages communicated within the MDN and between an MHS and an MDN as electronic mail messages.

In any event, at least some messages handled by the MDN, when considered as including both the mandatory and optional header, contain all four parts of what NTP asserts must be included in an electronic mail message. For instance, the PDU from a FT to an MDX has (1) a content portion, (2) a mandatory header including a Unique Message identifier and (3) the Originator Address, and (4) an optional header which includes the Recipient Address. (Telenor '89, Vol. 3, p. 31, ll. 1-21). It is not necessary that every message transmitted through the system contains all of the allegedly required fields for an electronic mail message. A single one would suffice.

NTP argues that Telenor '89 does not explain how an MDN user actually generates a message as input into the Telenor '89 system but only describes possible protocols for data that may be transmitted. (Brief 61:2-15). The argument is misplaced. The protocol requirements provide specific information on what the transmitted messages must or may include, because the protocols are rules governing the transmission of messages. NTP's argument unreasonably insists on not only that there be substantive teachings in the prior art which satisfy a claim limitation but that the teachings are expressed in a particular manner that NTP would prefer. It is simply not necessary that Telenor '89 specifically describe what application program is running on a fixed terminal or mobile station in the MDN and exactly what it prompts a user to input into the system. Moreover, NTP itself acknowledges that information about the sender may be automatically added by the terminal and need not be actually inputted by the user. (Brief 61:12-13). It is sufficient that an MDX is associated with a plurality of fixed

terminals which can generate and send an electronic mail message to each other.

NTP argues that Telenor '89 teaches away from providing a message that has all four elements of NTP's disclosed electronic mail messages because it states "that only data input by the user may be transmitted over the network due to bandwidth issues." (Brief 62:3-6). But NTP's argument does not indicate where in Telenor '89 the alleged statement exists. Paragraph 22 of the Supplemental Declaration of Dr. V. Thomas Rhyne, cited in NTP's appeal brief, likewise makes no citation to Telenor '89. We cannot verify or consider the meaning and significance of the alleged statement without first locating it in Telenor '89. NTP's argument fails on that basis alone.

We decline to search the seven volumes of Telenor '89 to see if NTP's assertion can be verified. It is NTP's responsibility to point out where the alleged statement appears in the record to support its argument. Board Rule 41.37(c)(1)(vii) requires citation to the parts of the record relied on. *See also Halliburton Energy Services, Inc. v. M-I LLC*, 514 F.3d 1244, 1250 n.2 (Fed. Cir. 2008) (judges are not like pigs, hunting for truffles buried in briefs—quoting *United States v. Dunkel*, 927 F.2d 955, 956 (7th Cir. 1991)) and *DeSilva v. DiLeonardi*, 181 F.3d 865, 867 (7th Cir 1999) (a brief must make all arguments accessible to the judges, rather than ask them to play archaeologist with the record). In any event, the alleged statement does not preclude a transmitted message from having any number, or all four parts, of what NTP asserts must be contained in an electronic mail message. They simply would all have to be entered by the user. We have identified where

Telenor '89 describes the contents of its PDUs in the MDN. Some PDUs include all components NTP asserts must be present in an electronic mail message.

2. Electronic Mail System/Interface/ RF Information Transmission Network

According to NTP, all of the claims rejected as anticipated by Telenor '89 require an interface which connects an electronic mail system containing a plurality of originating processors to a RF information transmission network, or a similar limitation. (Brief 60). In that context, the electronic mail system should not include the RF information transmission network, because the interface recitation implies two separate elements. It is illogical and not meaningful to refer to an interface connecting one system to another if the former includes the latter or vice versa.

NTP argues that each MDX is not an electronic mail system. (Brief 60:22 to 61:1; 62:7-10). The argument is rejected because it is based on an excessively narrow interpretation of the claim terms "electronic mail message" and "electronic mail system."

According to NTP, an "electronic mail system" requires a plurality of processors running electronic mail programming, *i.e.*, an application program specially designed to create, send, access, and manage electronic mail messages, and an "electronic mail message" must include a destination address, an indication of the sender, a subject field, and inputted message text. (Brief 61:2-15). NTP argues that the Examiner has not established what type of electronic mail programming is operating on the fixed terminals

and precisely what a user actually does to input a message and whether the message has all four allegedly required fields. (Brief 61:2-21).

As we have already explained above, NTP's claim interpretation is excessively narrow. That a fixed terminal FT of an MDX is capable of sending a message to another fixed terminal FT of the same MDX, which message includes the recipient address, is sufficient to make the MDX together with its associated fixed terminals an electronic mail system. The Examiner need not establish precisely how a user of a fixed terminal inputs the message or what particular and special electronic mail programming is run on each fixed terminal.

The part of the MDN extending from the Network Adaptors to the Base Stations to the Mobile Stations constitutes a RF information transmission network. (See Answer 10:20-24). For a message sent from a fixed terminal in the MDN to a mobile station, the home MDX of the recipient mobile station constitutes the interface between the electronic mail system and the RF information transmission network. (See Answer 10:20-24). For a message sent from a MHS to a mobile station, the home MDX of the mobile station serves as the interface between the electronic mail system and the RF information transmission network. (See Answer 10:20-24).

NTP cannot reasonably assert, and has not asserted, that the home MDX of a recipient mobile station MS is not an interface connecting the network of MDXs with their assigned fixed terminals to an RF information transmission network. NTP cannot reasonably assert, and has not asserted, that the home MDX of a recipient mobile station MS is not an interface

connecting a MHS to an RF information transmission network as represented by the network adaptors, base stations, and mobile stations.

> 3. Originated information being transmitted by an RF information transmission network to at least one RF receiver or a destination processor

All of the claims of the '670 patent require that the originated information be transmitted by an RF information transmission network or system to at least one RF receiver or destination processor. In that connection, independent claims 1 and 57 recite at least one destination processor and independent claims 113, 119, 125, 131, 173, 177, 181, and 185 recite at least one RF receiver.

A prior art reference must be enabling as to the claimed invention it anticipates. *In re Donohue*, 766 F.2d 531, 533 (Fed. Cir. 1985). It is not necessary, however, that an invention disclosed in a publication shall have actually been made to satisfy the enablement requirement. *Id.* NTP argues that Telenor '89 does not enable one with ordinary skill in the art to build a system for transmission of originated information from an RF information transmission network to an RF receiver. Failure of transmission to an RF receiver would also mean failure of RF transmission to a destination processor, as the destination processor would require an RF receiver to receive RF transmission of originated information.

NTP's reasoning (Brief 63:17 to 64:14) is reproduced below:

The Telenor documents fail to describe how communication between a BS and the Radio Unit/RPC controller actually occur. Indeed, the Telenor documents indicate that communications between the BS and the Radio Unit/RPC occurs using one of two protocols. The Radio Bearer

Protocol and the Radio Transfer Protocol on the Radio Bearer Layer and the Radio Transfer Layer, respectively. *See* Telenor at 3:4-6. Then, at 3:9-10, those documents explain the general goals of the Radio Bearer Layer including that it "shall provide the ability to transport one radiogram between MS and BS" and its goal is to relate to "addressing of sending/receiving MS and BS." Telenor at 3:9. Volume 3 then states on page 9 that the "<u>the above functions is not described in detail in this</u> <u>specification [*sic*]." *Id.* The next page indicates that the Radio Transfer Layer functionality "will depend on the functionality of the protocol chosen for RBL." *Id.* at 7:10. *See* Rhyne Supplemental Declaration, ¶ 26.</u>

Clearly, at the time this document was written, the Telenor authors had not resolved how to transfer radiograms between a base station and the mobile stations. The protocols had not been designed, therefore, and hence were not included in the Telenor documents. This failure to disclose is further confirmed in Volume 7 where the authors stated that "[s]ince the objective of this study was to describe services, networking and the upper layer protocols for message based mobile communications, no specific radio protocol has been described." *See* Telenor at 7:1. *See* Rhyne Supplemental Declaration, ¶ 27.

Accordingly, Patent Owner submits that the Telenor documents are insufficient to enable a person of ordinary skill in the art of the Campana patents to build a system for transmission of originated information (which has been defined as the message text of an electronic mail message) from using an RF information network to an RF receiver as required by all of the claims of the '670 Patent. Thus, the Telenor documents fail to anticipate any of the claims of the '670 Patent for this additional reason. *See* Rhyne Supplemental Declaration, ¶ 28. [Emphasis in original.]

NTP's argument is misplaced, as it mistakenly assumes that every implementation detail must be specifically disclosed by a prior art reference.

The test for passing the enabling disclosure requirement under 35 U.S.C. § 112, first paragraph, is whether one reasonably skilled in the art could make or use the claimed invention from the disclosed subject matter together with information in the art without undue experimentation. United States v. Telectronics, Inc., 857 F.2d 778, 785 (Fed. Cir. 1988). A disclosure can be enabling even though some experimentation is necessary. *Hybritech* Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1384 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987). The issue is whether the amount of required experimentation is undue. In re Vaeck, 947 F.2d 488, 495 (Fed. Cir. 1991); In re Angstadt, 537 F.2d 498, 504 (CCPA 1976). The factors suitable for consideration in making the enablement determination include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. See In re Wands, 858 F.2d 731, 737 (Fed. Cir. 1988).

Nothing in the above-quoted rationale of NTP is directed to whether the missing specifics could have been filled in or designed by one with ordinary skill in the art without undue experimentation. The question is not whether Telenor '89 discloses every implementation detail, but whether one with ordinary skill in the art, given the disclosure of Telenor '89, would have known enough to make and use the invention of the claims rejected as

anticipated by Telenor '89 without undue experimentation. In that connection, NTP has not explained (1) what difficulties exist, (2) what kind of effort would have been required of one with ordinary skill in the art to come up with what Telenor '89 is said not to disclose, and (3) why that effort constitutes undue experimentation rather than routine experimentation.

For the foregoing reasons, we reject NTP's argument that Telenor '89 does not enable one with ordinary skill in the art to build a system which broadcasts an inputted message from a broadcast location to an RF receiver.

4. The originated information being transmitted to the interface in association with an address of the interface

All of the claims on appeal include the requirement that the originated information is transmitted to the interface in association with an address of the interface. The Examiner accounted for that limitation in the context of Telenor '89, in the final office action dated August 22, 2006. (Final Office Action 23:16-35 and 24:30-32). We see no argument in NTP's appeal brief which disputes the Examiner's determination in that regard, except for just one sentence on page 62 of the appeal brief which states that in Telenor the originated information is not transmitted "in connection with" an address of the interface, which cites to Rhyne Supplemental Declaration ¶ 24. That sentence does not identify the correct claim language and is merely conclusory. Paragraph 24 of the Supplemental Declaration of Dr. Rhyne states the same in a conclusory manner and provides no reasoning and does not address the Examiner's rationale. Thus, the argument is unpersuasive. In its reply brief NTP makes the argument (Reply 41:13-20):

With regard to the independent claims of the '670 patent, [c]laims 1, 113, 125, 173 and 181 each recites "the originated information is transmitted in association with an address of the one interface" (emphasis added) and [c]laims 57, 119, 131, 177 and 185 each recites "transmitting the originated information in association with an address of the one interface" (emphasis added).

Patent Owner can locate no disclosure in the Telenor documents that teaches the limitations of any of the aforementioned independent claim, and therefore the Telenor documents do not anticipate the independent claims.

The Telenor documents may, at best, disclose a mobile data network ("MDN") including an originator of a message, wherein the originator of the message is configured to send the message to a recipient by addressing the message with only a single, recipient address (vol. 1, section 3.1, page 11; figure 7; see also vol. 1, section 3.6.3, pages 27 and 32)(emphasis added). Additionally, the Telenor documents may disclose, at best, that the recipient is the party at a device at the end of the network path not an intermediate device along the network path (id.). Accordingly, Patent Owner can find no disclosure in Telenor of the claimed limitations: "the originated information is transmitted in association with an address of the one interface" (emphasis added) or "transmitting the originated information in association with an address of the one interface" (emphasis added). For at least this reason, Telenor does not anticipate any of the independent Claims 1, 57, 113, 119, 125, 131, 173, 177, 181 or 185.

We decline to consider NTP's above-quoted argument, as the argument was waived by NTP's not having presented it in its appeal brief. NTP expressed no reason as to why the argument could not have been made in its appeal brief when the Examiner's position on the issue was clearly expressed in the final office action dated August 22, 2006, as noted above.

Alternatively, even if the belated argument is considered, it is not persuasive, because NTP does not specifically address the Examiner's reasoning with regard to the limitation at issue. It is of no moment that the Patent Owner can locate no disclosure in the Telenor documents that teaches the limitation. What matters is that the Examiner located the teaching and reasonably explained his findings on page 23, lines 17-35, of the final office action dated August 22, 2006. NTP must specifically address the Examiner's reasoning. That, however, it has failed to do. Moreover, the argument does not cite to any supporting evidence. The unsupported attorney argument simply does not overcome the Examiner's reasoning, particularly when the argument does not specifically address the Examiner's reasoning.

5. NTP separately argues dependent claims 2, 3, 58, 59, 115, 116, 121, 122, 127, 128, 133 and 134

Some of these dependent claims, like claims 2, 58, 115, 121, 127, and 133, specify that the electronic mail system containing the plurality of destination processors is the same electronic mail system containing the plurality of originating processors. The other dependent claims of this group, like claim 3, 59, 116, 122, 128, and 134, specify that the electronic mail system containing the plurality of destination processors is a different electronic mail system than the electronic mail system containing the plurality of originating processors.

At once, NTP argues that the electronic mail system containing the plurality of destination processors is neither the same nor different electronic mail system from the electronic mail system containing the plurality of

originating processors. The argument is without merit, as it is based on NTP's non-recognition of each MDX, together with its associated fixed terminals and mobile stations, in Telenor '89, as an electronic mail system. We have already rejected that contention. Thus, in the case of originating processors belonging to or associated with one MDX sending a message to destination processors within the same MDX, then the two electronic mail systems are the same. In the case of originating processors belonging to or associated with one MDX sending to or associated with one MDX, then the two electronic mail systems are the same. In the case of originating processors belonging to or associated with one MDX sending a message to destination processors within the two electronic mail systems are different MDX, then the two electronic mail systems are different.

Accordingly, NTP has not shown error in the Examiner's rejection of dependent claims 2, 3, 58, 59, 115, 116, 121, 122, 127, 128, 133, and 134.

6. NTP separately argues the merits of dependent claims 5, 25, 35, 61, 81, 91, 117, 123, 129, 135, 175, 179, 183, and 187

Each of these dependent claims requires the assembling of originated information from a plurality of originating processors into a "packet" and transmitting of the assembled "packet" to the RF information transmission network. The Examiner regards this limitation as met by Telenor '89 because in Telenor '89 it is described that "one single MDX may send several delive messages to a NA" (Answer 140:24-25) and thus the grouped messages which are delivered together constitute a bundled "packet." Alternatively, The Examiner explained that in Telenor '89 the MDX sends to the NA a construct comprised of "one high-priority message inside a low-priority message" and the high and low priority messages can come from two different originating processors. (Answer 141:13-23).

NTP argues that a packet is a "bundle of data, usually in binary form, organized in a specific way for transmission," and that a packet consists of the data to be transmitted and certain control information. It is not apparent why the collectively bundled messages identified by the Examiner would not have been accompanied by control data and would not be organized in any manner. It is also unreasonable to regard the embedding of a high-priority message inside a low-priority message as happening without any control data and without organization. The Examiner has established a prima facie case that Telenor '89 discloses the assembling of a "packet" even assuming that NTP's view of what constitutes a packet is correct, and NTP has not adequately rebutted that determination.

For instance, NTP has not addressed the Examiner's rational based on the construct of a high-priority message embedded with low-priority message. We have reviewed ¶ 31 of the supplemental declaration of Dr. Rhyne, which is relied on by NTP. That testimony is conclusory and does not explain why a bundle of messages delivered as one would not be organized or would not be accompanied by control data. It also does not explain why the construct of a high priority message embedded within a low priority message would not be accompanied by control data or would not have any organization.

Accordingly, NTP has not shown error in the rejection of claims 5, 25, 35, 61, 81, 91, 117, 123, 129, 135, 175, 179, 183, and 187 as anticipated by Telenor '89.

7. NTP separately argues the merits of dependent claims 9-12, 15, 65-68, 71, 565, 566, 569, and 570

These claims require a gateway switch. NTP argues (Brief 66:10-16) that the Examiner is wrong in identifying the MIWU as a gateway switch. NTP asserts that a "gateway switch" in the context of the '670 patent is a "processor in an electronic mail system which connects other processors in that system and has additional functions for supporting other conventional aspects of the electronic mail system such as receiving, storing, routing, and/or forwarding electronic mail messages." (Brief 66:12-15). According to NTP, there is no disclosure in Telenor '89 describing the MIWU as a processor in an electronic mail system, which would require the MIWU to run "electronic mail programming" for creating electronic mail messages having the four parts NTP regards as essential in any electronic mail message. (Brief 66:18-22).

We have already rejected NTP's very narrow interpretation of what constitutes a gateway switch. The claim term "gateway switch" does not require a processor in an electronic mail system which connects processors in that system and which has additional functions for supporting other aspects of an electronic mail system such as receiving, storing, routing and/or forwarding electronic mail messages. An interface unit which provides controlled entry of information into a separate system, device, or another system component reasonably constitutes a gateway switch. There simply is no requirement on what must be on one side of the gateway switch, what must be on the other side of the gateway switch, and what specifically must pass through the gateway switch. It is also not necessary that a

gateway switch must implement a certain kind of electronic mail programming for creating electronic mail messages of the specific type preferred by NTP.

The MIWU is a gateway switch because it is an interface unit between the MHS and the MDN. Telenor '89 discloses that a MIWU is responsible "for the interwork between MDN and a public MHS service" and that "communication between an MDN subscriber and a MHS user may be routed over any of the existing MIWUs." (Telenor '89, Vol. 1, p. 6, ll. 1-4). The messages passing through a MIWU to the MDN from the MHS constitute electronic mail messages because they contain an envelope portion and a content portion. (Telenor '89, Vol. 8, p. 6, sec. 2.4). The envelope information are data such as originator, recipient, content type, content length, and message identifier. (Telenor '89, Vol. 8, pp. 33-37, sec. 7.2).

Accordingly, NTP has not shown error in the Examiner's rejection of dependent claims 9-12, 15, 65-68, 71, 565, 566, 569 and 570.

NTP separately argues the merits of claims 19, 29, 39, 75, 85, 95, 137, 140, 143, 146, 149, 152, 155, 158, 161, 164, 167, 170, 189, 192, 195, 198, 201, 204, 207, 210, 213, 216, 219 and 222

Each of these dependent claims includes the limitation of the interface removing from the originated information information added by the electronic mail system. The Examiner notes that in Telenor '89 the originated information can include the address or identification of a Distribution List residing in an MDX, and that the MDX would replace the

address or identification of the Distribution List with the actual addresses contained in the list. (Final Office Action 27-28; Answer 18, 146).

NTP asserts that the Examiner's position "does not make sense" (Brief 67:9) because if the Distribution List is stored in the MDX then it is not used in the transmission to the MDX and if it is removed at the MDX then it is also not used in any subsequent transmission from the MDX. The argument miscomprehends the Examiner's position. It is the address or identification of the Distribution List that is removed from the header in the originated information, not the contents of the Distribution List which is stored at the MDX. NTP fails to address the Examiner's clearly stated position that the address of the Distribution List is removed at the MDX and replaced with the actual recipient addresses contained in the list.

The Examiner also articulated an alternative position which is similarly not addressed by NTP. Specifically, the Examiner stated (Answer 147:1-3):

Also [note] that during autoforwarding, the MDX (interface) replaces (i.e., removes) the intended recipient address and replaces that address with a forwarding address (vol. 2, pp. 79-84). See also section C.2.c, Scenario 2, the case of autoforwarding.

Accordingly, NTP has not shown error in the Examiner's rejection of dependent claims 19, 29, 39, 75, 85, 95, 137, 140, 143, 146, 149, 152, 155, 158, 161, 164, 167, 170, 189, 192, 195, 198, 201, 204, 207, 210, 213, 216, 219, and 222.

9. NTP separately argues the merits of dependent claims 20, 30, 40, 76, 86, and 96

While NTP has identified claim 98 as having been grouped with claims 20, 30, 40, 76, and 86 (Brief 67:16-21), it is claim 96 which has similar limitations as those in claims 20, 30, 40, 76, and 86, and claim 98 has not been rejected by the Examiner as anticipated by Telenor '89. We assume that the reference to claim 98 is a typographical error, and that NTP actually refers to claim 96.

Each of dependent claims 20, 30, 40, 76, 86, and 96 adds the further limitation of the RF receiver's signaling the destination processor that received originated information is stored in a memory of the RF receiver, and of the destination processor's controlling the transfer of the received originated information from the memory of the RF receiver to the destination processor by way of a control program stored in the destination processor. Evidently, NTP asserts that these features have not been met.

NTP's argument does have merit. We have reviewed the Examiner's reasoning (Answer 18-19) and do not see where the Examiner has identified an RF receiver which includes its own memory and which sends a signal to a destination processor to indicate that there is received originated information in the memory of the RF receiver. The Examiner asserts that a control program in the destination processor to control the transfer of information from the memory of the RF receiver to the destination processor would be inherent. We are not persuaded that that is true. The Examiner does not explain why the control program could not reside in the RF receiver which has its own memory, and not in the destination processor. It is also unclear

what in Telenor '89 the Examiner regards as the RF receiver and what the Examiner regard as the destination processor, which uncertainty undermines the Examiner's position that the claim features at issue are met. In particular, the Examiner has not accounted for the feature requiring the RF receiver to send a signal to the destination processor to indicate that received originated information is stored in the memory of the RF receiver.

Accordingly, the rejection of claims 20, 30, 40, 76, 86, and 96 as anticipated by Telenor '89 cannot be sustained.

10. NTP separately argues the merits of claims 138, 139, 141, 142, 145, 147, 148, 150, 151, 153, 154, 156, 157, 159, 160, 162, 163, 165, 166, 168, 169, 171, 172, 190, 191, 193, 194, 196, 197, 199, 200, 202, 203, 205, 206, 208, 209, 211, 212, 214, 215, 217, 218, 220, 221, 223, and 224

Each of these dependent claims includes the limitation that originated information including an identification number of the RF receiver is transmitted from one RF information transmission network switch to another RF transmission network switch. In that regard, the Examiner's position is stated as follows (Answer 148:2-8):

When an email is sent to a recipient mobile station (MS) via the RF system, Telenor clearly teaches that the identification of the RF receiver is sent to the NA and from the NA to the BS. See the figure in section C.2.c., Scenario 1, step 2, which illustrates that information flow from the NA to the MS, which necessarily includes the BS, and which includes the identification of the RF receiver. See also vol. 1, p. 1, Fig. 1 and pp. 33-37. At a more basic level, the identification is forwarded with the data or else the BS would not be operable to send the data to the specified user.

We have reviewed all material referenced by the Examiner in the above-noted paragraph, and find that the Examiner's stated position incorrectly equates what is disclosed in Telenor '89 simply as a recipient address to the claimed "identification number" of the RF receiver. The two are not the same. In the context of NTP's '670 patent, the RF receiver has its own identity apart from the destination processor as the ultimate recipient device and also from the user for whom the transmission is intended. ('670 Patent 18:40-60).

Even assuming that in Telenor '89 the "recipient address" is included in the originated information and is transferred from the network adaptor NA to the base station BS and that the NA and the BS are RF information transmission network switches, the Examiner has not shown that the "recipient address" is necessarily the identification number of the RF receiver. Although it is true that the identification number of the RF receiver is needed for wireless transmission from the base station BS to the RF receiver, the Examiner has not explained why it is the case that the identification number must be determined prior to the originated information's being transmitted from the NA to the BS. There is at least the possibility that a lookup table may reside at the base station BS to translate the recipient address into an identification number for the RF receiver.

Accordingly, the rejection of claims 138, 139, 141, 142, 145, 147, 148, 150, 151, 153, 154, 156, 157, 159, 160, 162, 163, 165, 166, 168, 169, 171, 172, 190, 191, 193, 194, 196, 197, 199, 200, 202, 203, 205, 206, 208, 209, 211, 212, 214, 215, 217, 218, 220, 221, 223, and 224 as anticipated by Telenor '89 cannot be sustained.

11. NTP separately argues the merits of dependent claim 557

Claim 557 requires that information is deleted from the electronic mail prior to transmission by the RF information transmission network. The Examiner explained on pages 30-31 of the final office action dated August 22, 2006, what information is deleted in Telenor '89 from the electronic mail before transmission by the RF information transmission network. The same explanation is reproduced in the Examiner's Answer. (Answer 21:24 to 22:13). According to NTP (Brief 68:21-24), the Examiner relied on "substitution of information for the Distribution List," and NTP argues that substituting the destination address with other destination addresses does not change any sender or subject information.

NTP's argument is either misplaced or incomplete. We have reviewed the Examiner's explanation and note that it makes no reference to substitution of a "Distribution List." Instead, it refers to the removal of an intermediate MIWU address for replacement by destination addresses, *i.e.*, addresses of final locations where the information will ultimately be sent. It also refers to the deletion of certain protocol specific information and refers specifically to Volume 8, p. 48 and p. 54, of Telenor '89. It further refers to deletion of information from the email by the interface (hMDX of the destination processor) for a variety of reasons, such as lack of storage space and the lapse of a validity period. NTP has not addressed any of these pertinent findings of the Examiner.

Accordingly, NTP has not shown error in the Examiner's rejection of claim 557.

12. NTP separately argues the merits of dependent claims 567-570

Claim 567 recites that an address of the destination processor is added to the originated information by a second processor and that the address is an identification of the RF receiver which is to receive the originated information. Each of claims 568-570 depends directly or indirectly from claim 567. The Examiner has identified the MIWU as the second processor and explained (Answer 24:12-18):

Telenor discloses that the MIWU may translate destination addresses into one operable in the MDN system. The MIWU performs extensive character conversion on the recipient address in order to convert the recipient address (identifying the MDN MS) into an address understood by the MDN (vol. 8, p. 25, last paragraph, and pp. 25-27). Also, the MIWU adds an MDN addressable user address to the outgoing message from its own internal tables, such as its equivalence table (vol. 8, p. 24, last paragraph). Such fulfills the claimed teaching of adding an identifying address.

As we have already discussed above, in the context of NTP's '670 patent, the RF receiver has its own identity apart from the destination processor as the ultimate recipient device and also from the user for whom the transmission is intended. ('670 Patent 18:40-60). An MDN addressable user address and a recipient address as noted by the Examiner are not necessarily an identification of a particular RF receiver. The Examiner has not shown that the recipient address of a mobile station MS, as disclosed in Telenor '89, is a specific identification of an RF receiver.

While specific identification of the RF receiver may serve as the recipient address, that does not have to be the case. Specific identification of

a particular RF receiver may be achieved indirectly by use of a recipient address which is not itself an identification of the RF receiver, through further processing and conversion. For instance, and by analogy, if each person owns one motor vehicle, the particular vehicle currently owned by a person can be determined by an investigation based on the person's name and the registered ownership records. But that does not reasonably make the person's name a specific identification of the vehicle. An investigation is necessary because the device has not been identified. The same is true for a recipient address which can lead to identification of an RF receiver but is not itself an identification of the RF receiver. The term "identification" cannot reasonably be interpreted as covering that which simply serves as a lead requiring further investigation or processing to make an identification.

On page 151 of the Answer, the Examiner notes that the specification of the '670 patent discloses that the identification number of the RF receiver is "preferably" used as the address of the destination processor. That supports the position that the identification number of the RF receiver need not itself be the recipient address. The Examiner has articulated no reason why the same would not equally be so in the context of Telenor '89.

For the foregoing reasons, the rejection of claims 567-570 as anticipated by Telenor '89 cannot be sustained.

Conclusion

NTP has not shown that the Examiner incorrectly determined that Telenor '89 anticipates NTP's claims 1-6, 8-19, 23-26, 28, 29, 33-36, 38, 39, 43-62, 64-75, 79-82, 84, 85, 89-92, 94, 95, 99-137, 140, 143, 144, 146, 149,

152, 155, 158, 161, 164, 167, 170, 173, 174-189, 192, 195, 198, 201, 204, 207, 210, 213, 216, 219, 222, 224-276, 555-566, and 571-606.

NTP has shown that the Examiner incorrectly determined that Telenor '89 anticipates NTP's claims 20, 30, 40, 76, 86, 96, 138, 139, 141, 142, 145, 147, 148, 150, 151, 153, 154, 156, 157, 159, 160, 162, 163, 165, 166, 168, 169, 171, 172, 190, 191, 193, 194, 196, 197, 199, 200, 202, 203, 205, 206, 208, 209, 211, 212, 214, 215, 217, 218, 220, 221, 223, 224, and 567-570. D. Rejections based in whole or in part on Verjinski

1.

Anticipation rejection based on Verjinski

Claims 1-4, 6, 8, 10-12, 14-16, 18, 19, 24, 26, 28, 29, 34, 36, 38, 39, 57-60, 62, 64, 66-68, 70-72, 74, 75, 80, 82, 84, 85, 90, 92, 94, 95, 113-116, 118-122, 124-128, 130-134, 136, 137, 143, 146, 152, 155, 161, 164, 170, 173, 174, 176, 177, 180, 181, 182, 184-186, 188, 189, 195, 198, 204, 207, 213, 216, 222, 225, 226, 228-230, 232, 233, 239, 242, 248, 251, 252, 254-256, 258, 259, 265, 268, 274, 563, 565, 567, 568, and 571 were finally rejected under 35 U.S.C. § 102(b) as anticipated by Verjinski. The pages of Verjinski are numbered from 0806 to 0809, with split columns on pages 0806 through 0808.

We reverse.

Issue

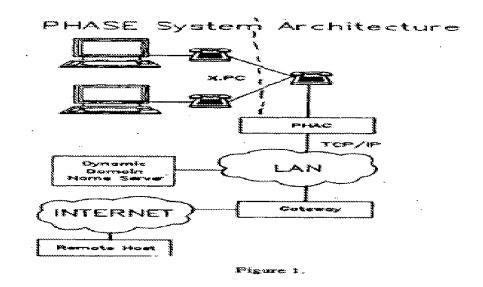
Has NTP shown error in the Examiner's anticipation rejection over Verjinski of each claim finally rejected under 35 U.S.C. § 102(b) as anticipated by Verjinski?

Findings of Fact

Verjinski discloses a system called Portable Host Access System Environment (PHASE) which enables portable computers ("PCs") to change their point of connection to the Internet and continue to be accessible by a fully specified Internet domain-name. (Verjinski 0806:1:2-5). In the context of its disclosure, Verjinski also refers to portable PCs as "portable hosts." (Verjinski 0806:1:30-31).

In Verjinski's system, a portable PC user dials in by telephone into a Portable Host Access Component (PHAC) to gain access to the Internet, and the PHAC acts as an interface for connecting the portable PC to the Internet. (Verjinski 0806:1:33-36). When a portable PC is connected to the PHAC by telephone, the PHAC assigns a temporary IP address to the portable PC, and the portable PC then sends its name and IP address to a Dynamic Domain Name Server (DDNS). (Verjinski 0807:1:30-33, 0808:2:43-45). Verjinski describes that in one embodiment the telephone connection between the portable PC and the PHAC can be through a conventional wired telephone system and in another embodiment through a cellular telephone. (Verjinski 0808:2:35-37 and 0809:2-4).

Verjinski describes that its PHASE architecture consists of three main components: the DDNS, the PHAC, and the portable hosts, i.e., the portable PCs. (Verjinski 0807:1:6-7). Figure 1 of Verjinski is reproduced below:



"The PHAC is connected to a Local Area Network (LAN) that supports TCP/IP protocols and is connected to the Internet through a gateway." (Verjinski 0807:1:9-11). Alternatively, the PHAC may be directly connected to an Internet Packet Switch Node. (Verjinski 0907:1:11-12). The PHAC serves as the access point for portable hosts, *i.e.*, the portable PCs, to connect to the internet. (Verjinski 0807:1:8-9).

As is shown in Figure 1, the PHAC communicates with remote hosts on the internet through a Local Area Network (LAN) which implements the TCP/IP protocol. (Verjinski 0807:1:9-11). As is stated in Verjinski (Verjinski 0807:1:39-43):

It is the job of the PHAC to recognize TCP packets that contain the IP address of each portable host connected to it. Packets destined for a connected portable host must be demultiplexed and sent on the appropriate X.PC channel.

The DDNS is a process that can be run on any Internet host, and the host which runs the DDNS does not have to reside on the same server as the PHAC. (Verjinski 0807:1:16-18). A remote host on the internet sends a

query to the DDNS about a portable host, and the DDNS responds to the query by sending the current temporary IP address of the requested portable host back to the remote host making the query. (Verjinski 0807:1:21-25). The DDNS stores the domain name and current IP address of the portable hosts, and each portable host may update its IP address in the DDNS data base within seconds of connecting to the network. (Verjinski 0807:2:23-26).

Although only one PHAC is shown in Figure 1 of Verjinski, it is understood that there are multiple PHACs to which a portable host may make a telephone connection, depending on its current location. Verjinski explains that after disconnecting from one PHAC and then reconnecting to another PHAC, a portable host is assigned a new temporary IP address. (Verjinski 0808:2:30-33). Verjinski describes that PHASE enables portable hosts to attach to any PHAC connected to a subnet of the Internet and that having many PHACs dispersed in the field increases the availability of a connection in a local calling area. (Verjinski 0807:1:2-5).

Similarly, although only one remote host is illustrated in Figure 1, it is understood that there are a plurality of remote hosts on the internet which may desire sending a message to a portable host. Verjinski describes that as a result of its technology, remote hosts can initiate connections to portable hosts (Verjinski 0806 1:16-17), that the PHAC routes packets between remote hosts on the internet and portable hosts (Verjinski 0807:1:12-14), and that domain name queries for portable hosts come from remote hosts through the local gateway to the DDNS. (Verjinski 0807:1:21-23).

Verjinski discloses two embodiments for the telephone connection between a PHAC and the portable hosts, a wired telephone connection

configuration and a cellular telephone configuration. Specifically, in describing a sample communication session between a remote host and a portable host (Verjinski 808:2:34-38), Verjinski states:

The following is a future scenario of a SMTP [Simple Mail Transfer Protocol] session integrated with the DDNS and the IP Update protocol. The current PHASE works with a conventional telephone system instead of the cellular telephone depicted in this scenario. A sample SMTP session is generally illustrated in figure 4. (Emphasis added.)

Thus, in a current scenario, a first embodiment, the connection between the PHAC and the portable hosts is through conventional wired telephone lines. But in a future scenario, a second embodiment, a cellular telephone connection replaces the wired telephone connections. The alternatives are mutually exclusive. Verjinski does not disclose that in a single embodiment some connections from a PHAC to a portable host are via wired telephone lines and some other connections are via a cellular link.

As an example of the future scenario, Verjinski discusses the sending of electronic mail by a military commanding officer as a remote user on the internet to a field officer as a portable host. (Verjinski 0809:1-25). It is understood that there may be multiple such persons on a plurality of remote hosts wanting to send an electronic mail message to the field officer on a portable host. The first step in that scenario involves the field officer's using a cellular phone to call a PHAC. (Verjinski 0809:2-4) When communication through the cellular phone is established, the PHAC sends the portable host a unique IP address and the portable host immediately updates the DDNS with the new IP address. (Verjinski 0809:4-7). The portable host then opens a passive connection on its SMTP port and waits, as

it is ready to receive messages from remote hosts on the internet through the PHAC. (Verjinski 0809:7-9).

When the commanding officer decides to send an email message to the field officer, the commanding officer's computer sends a query to the DDNS for the current IP address of the field officer's portable PC and the DDNS returns the temporary IP address of the portable PC. (Verjinski 0809:9-12). Then the commanding officer's SMTP implementation connects to the portable host and communicates with the SMTP on the portable host for sending the email in a SMTP mail session. (Verjinski 0809:12-14). Once the SMTP mail session is complete, the field officer reads the email. (Verjinski 0809:14-16).

As described in Verjinski and explained above, the entire configuration shown in Verjinski's Figure 1, sans the cellular telephone network in the cellular telephone embodiment, is an electronic mail system which includes a plurality of originating processors which send electronic mail and a plurality of destination processors which receive electronic mail.

Alternatively, because the commanding officer's SMTP mail program implementation on a computer enables the composition and sending of an electronic mail message to a portable host, a number of such computers together constitute an electronic mail system containing a plurality of originating processors. Still further in the alternative, each such computer itself constitutes an electronic mail system and there is a plurality of electronic mail systems including a plurality of originating processors.

Similarly, each PHAC and the portable computers it serves together constitute an electronic mail system including a plurality of destination

processors. The destination processors are the portable computers which receive electronic mail from the remote hosts through the PHAC and the cellular telephone network.

The cellular telephone system connecting a PHAC and portable computers constitutes an RF information transmission network and the cellular telephone used by the field officer in the above-described example to connect a portable host to a PHAC constitutes an RF receiver.

In that configuration, the PHAC constitutes an interface between the electronic mail system and the RF information transmission network. Information from a remote host on the internet and destined for a portable host must be directed first to the PHAC to which the portable host is connected, and the PHAC processes that information and sends it onward to the portable host on an appropriate channel through the telephone network. (Verjinski Figs. 1-2; 0807:1:38-43).

Verjinski discloses that the design of the PHAC allows eight X.PC connections to portable hosts via RS-232 ports and modems, and that the X.PC protocol permits up to fifteen logical channels per connection to be established if needed. (Verjinski 807:35-38). Verjinski also states that the PHAC can best be described as a gateway for portable hosts. (Verjinski 807:27-28).

Principles of Law

Anticipation under 35 U.S.C. § 102 requires that each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *In re Robertson*, 169 F.3d at 745; *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d at 631.

Analysis

All of the claims on appeal, in one form or another, require both (1) the transmission of originated information from an originating processor in electronic mail system by way of an RF information transmission network, and (2) the transmission of other originated information from an originating processor in an electronic mail system without using the RF information transmission network.

Based on our findings above concerning Verjinski's disclosure, NTP is correct that Verjinski does not disclose the transmission of originated information from an originating processor in an electronic mail system by way of an RF information transmission network and the transmission of other originated information from an originating processor in an electronic mail system without using an RF information transmission network.

The Examiner stated (Answer 35:1-3):

Verjinski's system may send and receive email in the standard way of email providing systems for originating information sent from originating processors to destination processors without the use of the RF network, see page 807 paragraph 2 and FIG. 4.

We have carefully reviewed the cited portions of Verjinski and can find no adequate support for the Examiner's assertion. The referenced portions do not describe that apart from the transmission of originated information via an RF transmission network, some other originated information would or may be transmitted by either the commanding officer's computer or the field officer's portable computer without use of the RF information transmission network.

The Examiner further stated (Answer 156:3-5):

Essentially, wired devices such as numerous remote hosts on the internet and numerous X.PC-networked wired devices may send and receive mail with each other, among themselves, and/or with portable hosts.

The above-quoted statement is not accompanied by any citation to the disclosure of Verjinski. In Verjinski, the remote hosts are those described as wanting to communicate with a portable host, such as in the case of the military commanding officers wanting to communicate with field officers, and the X.PC networked wired devices are the portable computers in the embodiment which use conventional wired telephone lines to connect to the PHAC. The Examiner has not identified any portion of Verjinski which discloses that the commanding officers send email to each other, or that the field officers send email to each other, without use of an RF information transmission network.

It is noted that the ground of rejection on review here is anticipation under 35 U.S.C. § 102, and not obviousness under 35 U.S.C. § 103. Direct communication between commanding officers and between field officers is not disclosed by Verjinski. They are neither necessary nor inherent.

Conclusion

NTP has shown error in the Examiner's anticipation rejection over Verjinski of each claim finally rejected under 35 U.S.C. § 102(b) as anticipated by Verjinski.

2.

Obviousness rejection of claims 3, 9, 17, 34, 36, 38, 39, 59, 65, 73, 90, 92, 94, 95, 116, 122, 128, and 134 under 35 U.S.C. § 103 over Verjinski

The Examiner finally rejected dependent claims 3, 9, 17, 34, 36, 38, 39, 59, 65, 73, 90, 92, 94, 95, 116, 122, 128, and 134 under 35 U.S.C. § 103 as obvious over Verjinski.

Affirmed.

NTP advances three arguments with regard to the rejection of these claims as obvious over Verjinski: (1) Verjinski fails to teach or suggest transmitting any originated information from the originating processor without using the RF information transmission network; (2) Verjinski fails to teach or suggest the claimed interface; and (3) Verjinski fails to teach or suggest transmitting originated information in association with an address of the interface connecting the electronic mail system to the RF information transmission network. We address each of these arguments in turn.

a. Transmitting originated information without use of an RF information transmission network

We have reversed the anticipation rejection over Verjinski of the independent claims on which these dependent claims depend because we determined that Verjinski does not disclose that the remote hosts communicating with the portable processor via cellular telephone sends electronic mail to each other without using an RF transmission network. Here, in the context of an obviousness rejection, however, we note that one

with ordinary skill in the art possesses ordinary creativity and is not an automaton. *KSR Int'l Co. v. Teleflex Inc.*, 550 US 398, 415 (2007).

We conclude that it would have been obvious to one with ordinary skill in the art that two remote hosts wanting to communicate with the same portable processor would have reason to communicate with each other, if not about anything else then about the same user at the portable processor. We also conclude that it is within the level of ordinary skill in the art that two originating processors in an electronic mail system may have reason to send electronic mail to each other regardless of whether they both desire to communicate with the same portable computer. It is rudimentary and mere common sense that if a remote host has reason to communicate with a user who is using a portable computer, it may similarly have reason to communicate with a user who is operating a wirelined computer.

As is illustrated above in Figure 1 of Verjinski reproduced above, the remote hosts are connected by wireline over the internet and communication between them does not require the use of an RF information transmission network.

b. An interface connecting electronic mail system to RF information transmission network

NTP's argument that Verjinski does not disclose an interface connecting an electronic mail system containing a plurality of originating processors to an RF information transmission network is without merit.

NTP asserts (Brief 73:16-19):

[T]he PHAC does not comprise an "interface" as that term is properly [construed] because it does not comprise "a device or

> system, which includes a processor, that transmits electronic mail messages to a wireless system for delivery to a mobile processor."

As we have already discussed in the section of this opinion concerning claim interpretation, NTP's construction of the claim term "interface" is not the broadest reasonable interpretation in light of the specification. We construe "interface" as a structural connection or device between two or more systems, devices, or component parts through which information may pass from one side to the other. An interface does not by definition necessarily have to transmit electronic mail messages, and certainly does not have to transmit electronic mail messages of a very specific type. We also discussed earlier why NTP's interpretation of what constitutes an electronic mail message is excessively narrow.

In any event, the PHAC does indeed transfer electronic mail from one side to the other. Note, for example, the following discussion in Verjinski about what is sent from a remote host to a portable computer through the PHAC (Verjinski 809:9-18):

The Commanding Officer [remote host] decides to send a mail message to the field officer [portable host].... The C.O.'s SMTP [Simple Mail Transfer Protocol] implementation connects to the PC in the field and begins to communicate with the PC's SMTP mail server. Once the SMTP mail session is complete, the field officer reads the newly arrived mail. The mail from the C.O. tells the field officer to rendezvous at a remote point. The field officer disconnects the PC from the internet [and] drives to his destination.

In Verjinski, as specifically discussed in our findings above, one side of the PHAC connects to an electronic mail system including a plurality of

remote hosts as originating processors and the other side of the PHAC connects to a cellular telephone network which is an RF information transmission network. In that connection, note our discussion of the meaning of "electronic mail system" in the claim interpretation section of this opinion. NTP's construction of the term is excessively narrow and not the broadest reasonable interpretation in light of the specification.

NTP further argues (Brief 74:13-18) that the PHAC is used only to assign temporary IP addresses to portable computers and that email is transmitted directly from the remote host to the portable computer. The argument is rejected. We see no direct connection between a remote host and the portable computer without passing transmitted information through the PHAC. In that regard, note the following description (Verjinski 807:27-30):

The PHAC can best be described as a gateway for portable hosts. The PHAC establishes and maintains session mappings between TCP packets [from remote hosts] and X.PC channels [connecting to portable hosts through a telephone system]. It also handles the conversion of packet formats from one protocol to the other.... For each connection the PHAC maintains, data must be multiplexed onto the network interface. It is the job of the PHAC to recognize TCP packets that contain the IP address of each portable host connected to it. Packets destined for a connected portable host must be de-multiplexed and sent on the appropriate X.PC channel.

It is unmistakable that the PHAC receives from the remote hosts information destined for the portable hosts and performs the necessary protocol conversion on the received information before sending the information onward to a portable host.

c. Originated information transmitted in association with an address of the interface

Each of the rejected claims requires that the originated information be transmitted "in association with" an address of the interface.

NTP argues (Brief 74:11-12): "Patent Owner respectfully submits, however, that Verjinski does not teach or suggest any embodiment wherein an address of the PHAC is transmitted in association with originated information." The argument is misplaced, as none of the rejected claims requires that an address of the PHAC as an interface be transmitted in association with originated information. The claim feature of transmitting originated information in association with an address of the interface does not equate to or otherwise require transmission of an address of the interface.

NTP also argues that in Verjinski the remote host as originating processor first obtains the IP address of the portable host and then uses that IP address to communicate or send originated information to the portable host. (Brief 77:11-14). Thus, according to NTP, in Verjinski the transmission of originated information uses an address of the portable host and not any address of the PHAC as an interface. NTP further argues that in Verjinski the remote host and the portable host communicate directly by way of a telephone link once the remote host obtains the IP address of the portable host. (Brief 77:14-20). The arguments are misplaced.

Using the IP address of the portable host to transmit originated information does not mean an address of the PHAC as an interface is not involved. Also, NTP is simply incorrect that the remote host communicates directly with the portable host over a telephone link to the exclusion of the

PHAC as an interface. As is already discussed above, the PHAC serves as an interface receiving originated information from the remote host, converts it to a different protocol, and sends out the converted information to the portable host. The PHAC serves to connect the remote host and the portable host. Verjinski states (Verjinski 807:1:39-43):

It is the job of the PHAC to recognize TCP packets that contain the IP address of each portable host connected to it. Packets destined for a connected portable host must be de-multiplexed and sent on the appropriate X.PC channel.

It cannot be reasonably disputed that originated information is first routed to an appropriate PHAC which serves the intended portable host. The routing must direct the information to the appropriate PHAC interface for appropriate processing and retransmission. It does not matter whether both the remote host and the portable host must be connected through the PHAC at the same time for the transmission to reach the portable host. The claims do not require a message storage capability at the interface for later delivery.

The Examiner explained why use of an IP address of the PHAC is considered inherent in Verjinski for transmitting originated information from remote hosts to the PHAC. The Examiner stated (Answer 36:1-5):

Lastly, Verjinski discloses that an originating processor connects to the PHAC and receives a temporary IP address (section 1.0) in order to allow the communication session to work over TCP/IP protocol In such a case originating data would inherently be routed to the PHAC via an IP address as is the case in TCP/IP.

In connection to the above-quoted explanation, the Examiner also cited to RFC documents 1122 and 1123 which define TCP/IP protocol. (Answer

36:6-12). NTP has not presented persuasive argument or evidence showing why the Examiner's determination in that regard is wrong. NTP argues only that the citation to additional documents in an anticipation rejection is inappropriate. (Brief 79:1-9). But the rejection at issue here is based on 35 U.S.C. § 103 for obviousness, not on 35 U.S.C. § 102 for anticipation. In any event, we hold that the Examiner's citation to RFC documents 1122 and 1123 is not inappropriate notwithstanding that the stated ground of rejection does not specifically identify those documents. Vejinski's disclosure specifically identifies and discusses the use of TCP/IP protocol. (Verjinski Figure 1; 807:1:9-11 and 39-41). The RFC documents are relied on only to show the requirements of TCP/IP protocol.

The Examiner further explained, in the alternative, that the IP address of the portable host can be regarded as an IP address of the PHAC interface. (Answer 158:14-17). NTP also has not shown why that position is incorrect. Each portable host is connected to the internet only through a single PHAC. Anything information transmitted to the portable host from a remote host must come through the appropriate associated PHAC. An IP address of the portable host can reasonably be regarded as an address which identifies the associated PHAC for receiving electronic mail intended for the portable host. Thus, transmitting originated information by using the IP address of the portable host, without more, satisfies the requirement of transmitting originated information in association with an address of the interface.

> d. Separate argument for claims 3, 59, 116, 122, 128, and 134

NTP separately argues the merit of claims 3, 59, 116, 122, 128, and 134. Each of these claims add to the independent claim on which it depends the further limitation that the electronic mail system containing the plurality of destination processors is a different electronic mail system than the electronic mail system containing the plurality of originating processors. According to NTP, Verjinski does not disclose or suggest such an arrangement. The argument is without merit.

Each PHAC and the portable computers to which it connects by the telephone system together constitute an electronic mail system including a plurality of destination processors. The destination processors are the portable computers which receive electronic mail from the remote hosts through the PHAC. Also, because the commanding officer's SMTP mail program implementation on a computer enables the composition and sending of an electronic mail message to a portable host, a number of such computers together constitute an electronic mail system containing a plurality of originating processors. The electronic mail system containing the remote hosts as originating processors is different from the electronic mail system containing the portable computers as destination processors.

On balance, upon weighing the evidence of obviousness and NTP's submission of objective evidence of nonobviousness together as a whole, we conclude that the subject matter of the rejected claims would have been obvious to one with ordinary skill in the art.

NTP has not shown error in the rejection of claims 3, 9, 17, 34, 36, 38, 39, 59, 65, 73, 90, 92, 94, 95, 116, 122, 128, and 134 under 35 U.S.C. § 103 as unpatentable over Verjinski.

3.

Obviousness rejection of claims 5, 25, 35, 61, 81, 91, 117, 123, 129, 135, 175, 179, 183, and 187 under 35 U.S.C. § 103 over Verjinski and admitted prior art

The Examiner finally rejected dependent claims 5, 25, 35, 61, 81, 91, 117, 123, 129, 135, 175, 179, 183, and 187 under 35 U.S.C. § 103 as obvious over Verjinski and NTP's admitted prior art.

We affirm.

NTP advances the same three arguments we already addressed above in the context of the obviousness rejection of claims 3, 9, 17, 34, 36, 38, 39, 59, 65, 73, 90, 92, 94, 95, 116, 122, 128, and 134 over Verjinski: (1) Verjinski fails to teach or suggest transmitting any originated information from the originating processor without using the RF information transmission network; (2) Verjinski fails to teach or suggest the claimed interface; and (3) Verjinski fails to teach or suggest transmitting originated information in association with an address of the interface connecting the electronic mail system to the RF information transmission network.

For the same reasons already discussed above, the arguments are without merit and rejected.

On balance, upon weighing the evidence of obviousness and NTP's submission of objective evidence of nonobviousness together as a whole, we conclude that the subject matter of the rejected claims would have been obvious to one with ordinary skill in the art.

NTP has not shown error in the rejection of claims 5, 25, 35, 61, 81, 91, 117, 123, 129, 135, 175, 179, 183, and 187 under 35 U.S.C. § 103 as unpatentable over Verjinski and NTP's admitted prior art.

4.

Obviousness rejection of claims 13 and 69 under 35 U.S.C. § 103 over Verjinski, Gehlot and Rodriguez The Examiner finally rejected dependent claims 13 and 69 under 35 U.S.C. § 103 as obvious over Verjinski, Gehlot, and Rodriguez.

We affirm.

NTP advances the same three arguments we already addressed above in the context of the obviousness rejection of claims 3, 9, 17, 34, 36, 38, 39, 59, 65, 73, 90, 92, 94, 95, 116, 122, 128, and 134 over Verjinski: (1) Verjinski fails to teach or suggest transmitting any originated information from the originating processor without using the RF information transmission network; (2) Verjinski fails to teach or suggest the claimed interface; and (3) Verjinski fails to teach or suggest transmitting originated information in association with an address of the interface connecting the electronic mail system to the RF information transmission network.

For the same reasons already discussed above, the arguments are without merit and rejected.

On balance, upon weighing the evidence of obviousness and NTP's submission of objective evidence of nonobviousness together as a whole, we conclude that the subject matter of the rejected claims would have been obvious to one with ordinary skill in the art.

NTP has not shown error in the rejection of claims 13 and 69 under 35 U.S.C. § 103 as unpatentable over Verjinski, Gehlot, and Rodriguez.

5.

Obviousness rejection of claims 138, 139, 144, 145, 148, 153, 154, 157, 162, 163, 165, 166, 171, 172, 190, 191, 196, 197, 199, 200, 205, 206, 208, 209, 214, 215, 217, 218, 223, and 224 under 35 U.S.C. § 103 over Verjinski and DeVaney

The Examiner finally rejected dependent claims 138, 139, 144, 145, 148, 153, 154, 157, 162, 163, 165, 166, 171, 172, 190, 191, 196, 197, 199, 200, 205, 206, 208, 209, 214, 215, 217, 218, 223, and 224 under 35 U.S.C. § 103 as obvious over Verjinski and DeVaney.

We affirm.

NTP advances the same three arguments we already addressed above in the context of the obviousness rejection of claims 3, 9, 17, 34, 36, 38, 39, 59, 65, 73, 90, 92, 94, 95, 116, 122, 128, and 134 over Verjinski: (1) Verjinski fails to teach or suggest transmitting any originated information from the originating processor without using the RF information transmission network; (2) Verjinski fails to teach or suggest the claimed interface; and (3) Verjinski fails to teach or suggest transmitting originated information in association with an address of the interface connecting the electronic mail system to the RF information transmission network.

For the same reasons already discussed above, the arguments are without merit and rejected.

On balance, upon weighing the evidence of obviousness and NTP's submission of objective evidence of nonobviousness together as a whole, we conclude that subject matter of the rejected claims would have been obvious to one with ordinary skill in the art.

NTP has not shown error in the rejection of claims 138, 139, 144, 145, 148, 153, 154, 157, 162, 163, 165, 166, 171, 172, 190, 191, 196, 197, 199, 200, 205, 206, 208, 209, 214, 215, 217, 218, 223, and 224 under 35 U.S.C. § 103 as unpatentable over Verjinski and DeVaney.

 E. Rejection based on admitted prior art, Harrison, and Shoch The Examiner finally rejected claims 1-276 under 35 U.S.C. § 103 as obvious over NTP's own admitted prior art, and Harrison, and Shoch.

We affirm.

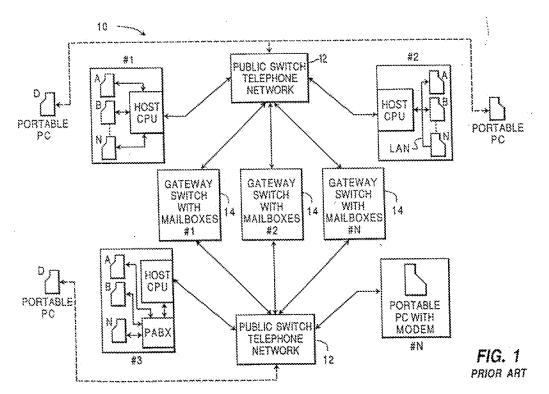
The admitted prior art is an electronic mail system shown in Figure 1 of the '670 patent and described in the "Background Art" section of the '670 patent as being in commercial use by entities such as the AT&T Corporation. ('670 patent 1:66 to 2:1). Hereinafter, we refer to the admitted art as the AT&T system.

NTP argues that Harrison is not applicable prior art because it has submitted evidence under 37 C.F.R. § 1.131 which antedates the filing date of Harrison. In Section I of this opinion we discuss NTP's evidentiary submission to antedate Harrison and conclude that NTP's submission is insufficient to antedate Harrison. Thus, Harrison is applicable prior art.

NTP argues that Harrison cannot be considered because it is not in the same field of endeavor as NTP's invention. The argument is misplaced. Only nonanalogous art is not appropriate for consideration in determining obviousness under 35 U.S.C. § 103. "Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably

pertinent to the particular problem with which the inventor is involved." *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). NTP's argument fails because NTP does not address the critical question whether Harrison is reasonably pertinent to the problem with which the inventors were involved. In any event, we disagree with NTP's assertion that Harrison is not in the same field of endeavor as NTP's '670 patent. NTP merely states (Brief 121:22 to 122:1): "Harrison relates to communication between LAN's -- not electronic mail system components." As is illustrated in Figure 1 of NTP's '670 patent, which depicts the admitted prior art, the LAN in Box #2 clearly is an electronic mail system component because it transfers electronic mail from a Host CPU interface to destination processors A-N.

Figure 1 of the '670 patent (the admitted prior art) is reproduced below:



The Examiner determined that the AT&T system includes a plurality of originating processors in Box #3, an electronic mail system as represented by Box #3 and an associated gateway switch, an interface represented by the Host CPU in Box #2, an information transmission system which is the local area network (LAN) in Box #2 connected to the interface, and destination processors A-N which are in Box #2.

The Examiner specifically acknowledged that the referenced interface does not connect an electronic mail system to an RF information transmission network, but to a wired information transmission network, *i.e.*, the LAN. (Answer 205:9-15). That fact is not in dispute.

NTP argues that the Host CPU in Box #2 is a part of the electronic mail system and thus not an interface that connects the electronic mail system to an information transmission network. But the argument is without merit, as we do not interpret electronic mail system as narrowly as does NTP. Box #3 together with its associated gateway switch constitute an electronic mail system without the inclusion of Host CPU in Box #2. Box #3 includes a number of processors which can send and receive electronic mail and the associated gateway switch can send originated electronic mail to other destinations. Thus, the Examiner is correct in regarding Box #3 and its associated gateway switch as an electronic mail system, and the Host CPU in Box #2 as an interface which connects the electronic mail system to a LAN which is an information transmission network.

As the Examiner correctly determined, the AT&T system as described in NTP's patent as prior art also includes an RF wireless connection to some destination processors and that finding is not disputed by NTP. There is no

description, however, as to how the addressing works and whether there is an interface which connects to the RF wireless network for sending electronic mail. In that regard, the NTP '670 patent merely states ('670 patent 2:6-10):

The individual processors may be portable personal computers with a modem which are linked to the public telephone switch network 12 through wired or RF communications as indicated by a dotted line.

To make up for that deficiency, the Examiner relied on Harrison, which discloses that a wired local area network LAN can be improved by the addition of a wireless adjunct 18, whereby a wireless base station 12 may communicate data to and from mobile units via wireless communication. (Harrison 5:37-58; Figure 2). Harrison further states that the wireless communication can be implemented by RF. (Harrison 2:13-17). Harrison also discloses that the mobile unit's network address is used at the wireless node 12 to send data to the mobile unit. (Harrison 6:4-18).

The AT&T system discloses use of a wired LAN for communications with destination processors. The Examiner reasonably concluded that in light of Harrison's teaching that it would be advantageous to add a wireless complement to a wired LAN for communicating with mobile units, it would have been obvious to one with ordinary skill in the art to add a wireless RF complement to the wired LAN in the AT&T system to communicate with the portable computers in AT&T's system. Also, the Examiner articulated another rationale, from the perspective of one with ordinary skill in the art, for adding the wireless sub-net of Harrison to the AT&T system, *i.e.*, that it "would improve the RF subsystem of the AT&T system by allowing

portable units to connect without the need to dial in to a BX or PSTN." As shown in Figure 1 of the '670 patent, the portable computers of the AT&T system have to connect to a public switch telephone network 12. Harrison provides an alternative mode of connecting the portable computers.

NTP argues that nothing suggests that using the teachings of Harrison would cure the deficiencies it discussed with respect to the AT&T system. (Brief 122:6-7). But NTP has not shown that the resulting combination proposed by the Examiner does not cure the problems NTP noted with regard to the admitted prior art. Moreover, the argument is misplaced, because there is no requirement in the determination of obviousness that prior art teachings must be combined in a manner specifically directed to solving the problem addressed by the inventor. An invention may well be obvious for reasons other than that contemplated by the inventors. *In re Dillon*, 919 F.2d 688, 693 (Fed. Cir. 1990) (en banc)(overruling-in-part *In re Wright*, 848 F.2d 1216) (Fed. Cir. 1988)).

NTP further argues that Harrison does not disclose an "interface." The argument is rejected. As we have already explained above, we do not interpret the claim term "interface" as narrowly as NTP desires. The Examiner correctly determined that Harrison's "gateway" constitutes an interface. In any event, an interface is already disclosed by the AT&T system for connecting an electronic mail system to an information transmission network, *i.e.*, the LAN. The same interface can connect to the additional wireless sub-net suggested by Harrison.

Finally, NTP argues that the originated information in Harrison is not transmitted in association with an address of the interface. According to

NTP, the messages in both the AT&T system and Harrison are transmitted in association with an address of the recipient unit. The argument is misplaced and rejected. The claim phrase "in association with" is broad. A transmission can be both in association with an address of the recipient unit and with an address of the interface. There is no conflict or inconsistency between the two. The Examiner articulated a rational basis as to why the transmission of originated information using Harrison's wireless sub-net would necessarily be in association with an address of the interface. The Examiner's stated rationale is reproduced below (Answer 203:16-22):

Further, Harrison discloses that the LAN may operate using TCP/IP (col 5 lines 31-36), in which case the interface would inherently use an IP address, as would all other nodes in the system which receive and transmit and route data, said address being used at a previous node to route the originating data to said interface by being attached to the data; note that Harrison discloses that the interface is "an intelligent device that may appear to the LAN as a bridge, a gateway or a concentrator", see col 1 lines 17-20. This system is described as sending TCP/IP datagrams throughout the network, see col 1 lines 13-32.

The Examiner further stated (Answer 206:6-8): "Harrison discloses a TCP/IP system, which, as discussed above, transmits datagrams in association with the address of an interface or node along the path of the data from one end to the other." NTP has not addressed that reasoning, much less demonstrated the Examiner's rationale to be unreasonable.

The combination of the AT&T system and Harrison renders NTP's claims obvious. Shoch is not necessary for making the rejection. The Examiner cited Shoch only for Shoch's disclosing that connecting a packet

radio network to a wirelined network is appealing as it "can provide some very attractive capabilities, including mobility, ease of reconfiguration, and potentially high bandwidth," citing the Introduction section of Shoch. Thus, Shoch provides additional reasons for adding a wireless RF network to the wirelined LAN in the AT&T system, on top of Harrison's suggestion.

On balance, upon weighing the evidence of obviousness and NTP's submission of objective evidence of nonobviousness together as a whole, we conclude that the subject matter of the rejected claims would have been obvious to one with ordinary skill in the art.

NTP has not shown error in the obviousness rejection of claims 1-276 under 35 U.S.C. § 103 over NTP's admitted prior art, Harrison, and Shoch.

F. Rejections based in whole or in part on Perkins

NTP argues that Perkins and Hortensius have been antedated by its submissions filed under 37 C.F.R. § 1.131. In Section I of this opinion, we address and evaluate NTP's submissions made under 37 C.F.R. § 1.131. It suffices here to note only that NTP's showings under 37 C.F.R. § 1.131 fall short and are insufficient to remove Perkins and Hortensius as prior art.

1.

The obviousness rejection of claims 1, 4, 19-24, 29-33, 57, 60, 75-80, 85-90, 95-99, 113, 114, 119, 120, 125, 126, 131, 132, 137, 146, 155, 164, 173, 174, 177, 178, 181, 182, 185, 186, 189, 198, 207, and 216 under 35 U.S.C. § 103 over Perkins and Hortensius

The Examiner finally rejected claims 1, 4, 19-24, 29-33, 57, 60, 75-80, 85-90, 95-99, 113, 114, 119, 120, 125, 126, 131, 132, 137, 146, 155,

164, 173, 174, 177, 178, 181, 182, 185, 186, 189, 198, 207, and 216 under 35 U.S.C. § 103 as unpatentable over Perkins and Hortensius.

We affirm-in-part.

The rejection of claims 4, 20, 24, 30, 60, 76, 80, 86, 90, and 96 under

35 U.S.C. § 103 as unpatentable over Perkins and Hortensius is reversed.

The rejection of claims 1, 19, 21-23, 29, 31-33, 57, 75, 77-79, 85, 87-

89, 95, 97-99, 113, 114, 119, 120, 125, 126, 131, 132, 137, 146, 155, 164,

173, 174, 177, 178, 181, 182, 185, 186, 189, 198, 207, and 216 under

35 U.S.C. § 103 as unpatentable over Perkins and Hortensius is *affirmed*. Issue

Has NTP shown error in the Examiner's rejection of claims 1, 4, 19-24, 29-33, 57, 60, 75-80, 85-90, 95-99, 113, 114, 119, 120, 125, 126, 131, 132, 137, 146, 155, 164, 173, 174, 177, 178, 181, 182, 185, 186, 189, 198, 207, and 216 under 35 U.S.C. § 103 as unpatentable over Perkins and Hortensius?

Findings of Fact

NTP's Claims

Of all NTP claims rejected as anticipated by Perkins, the independent claims are claims 1, 57, 113, 119, 125, 131, 173, 177, 181, and 185. Representative claim 1 has already been reproduced above in Section B.

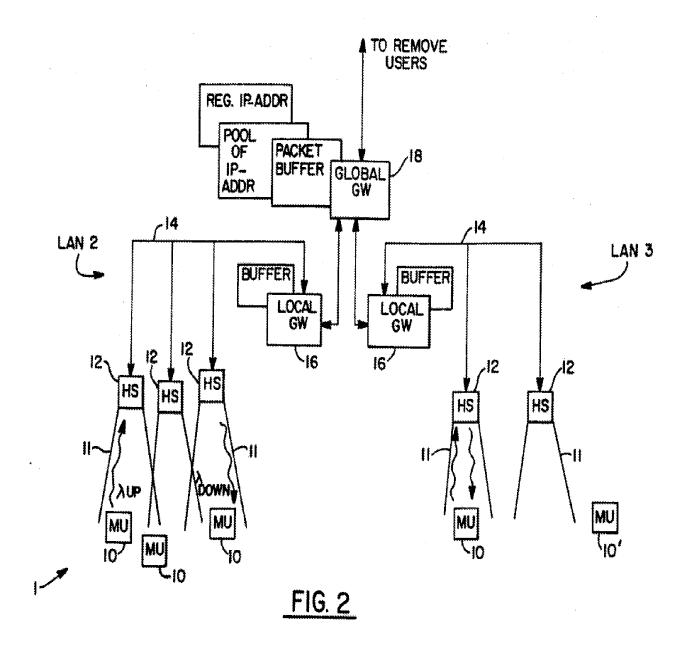
Perkins

The Perkins invention relates to an apparatus and method for managing bidirectional information transmission between a wired network and mobile communication units in wireless communication with the wired network. (Perkins 3:16-20). Perkins describes that an Internet Protocol (IP)

was already known and established which supports the interconnection of communication Local Area Networks (LANs). (Perkins 1:24-26). The IP transmits blocks of data, called internet datagrams, from sources to destinations throughout the internet, and sources and destinations are hosts located on either the same subnetwork or connected LANs. (Perkins 1:48-52). Perkins also describes that a Transmission Control Protocol (TCP) was already known and established which supports connection-oriented, end-to-end reliable data transmission in packet-switched computer LANs and internetworks. (Perkins 1:34-37). As background, Perkins describes that network elements, such as hosts, front-ends, gateways, etc., within Department of Defense networks which are to be used for internetting must implement TCP/IP. (Perkins 1:38-45).

Perkins states that an object of its invention is a method and apparatus for coupling wireless migrating users to a network operating in accordance with the TCP/IP type-protocol. (Perkins 2:55-59).

Perkins discloses local area networks 2 and 3 each including a plurality of mobile communications units (MU) 10 in wireless communication with a plurality of header stations (HS) 12 which are bidirectionally coupled to a wired LAN 14. (Perkins 3:56-61). Each LAN 2 and 3 includes local gateway (GW) 16 for coupling the mobile units 10, via header stations 12 and wired LAN 14, to a global gateway 18 (Perkins 4:21-25). The global gateway 18 is coupled to remote users. (Perkins 3:26-28). Figure 2 of Perkins is reproduced below:



For its preferred embodiment, Perkins discloses that header stations 12 conduct wireless communication with mobile units 10 by infrared radiation. (Perkins 3:63-65). Perkins also describes that for an alternative

embodiment the header stations 12 may conduct wireless communication through a RF (radio frequency) medium. (Perkins 3:65-66). Perkins also describes that each header station has an associated communications coverage area, shown as cell 11 in Figure 2. (Perkins 3:66-68). Thus, the header stations 12 with or without the corresponding local gateways 16 constitute a RF System or RF Information Transmission Network, that provides wireless RF communication to and from mobile units 10. And because the mobile units 10 receive wireless RF (radio frequency) transmission from header stations 12, each mobile unit 10 includes a RF receiver, among other components.

As each mobile unit 10 enters and leaves the area of LANs 2 and 3, it is allocated and deallocated respective pseudo-IP (Internet Protocol) addresses by the global gateway 18 which "owns" all of the pseudo-IP addresses. (Perkins 5:2-6). A mobile unit 10 maintains its assigned pseudo-IP address until it is turned off, or until the network session is actively terminated. Upon specific request by a particular mobile unit 10, a "permanent" association is made between the mobile unit and a pseudo-IP address. (Perkins 5:6-12).

Perkins discloses that all communication from a remote user to a mobile unit 10 employs the pseudo-IP address of the mobile unit 10. (Perkins 7:5-7). When a remote user initiates a conversation with a mobile unit 10 the remote user consults a network nameserver configured to send requests for specified mobile unit 10 names to a specified mobile unit 10 global gateway 18. (Perkins 7:13-17). A request for a mobile unit 10 name

fails unless there exists an association registered between the mobile unit 10 and a particular pseudo-IP address. (Perkins 7:17-20).

Perkins discloses that if a remote user obtains the pseudo-IP address of a registered mobile unit 10,⁴ the remote user is enabled to send messages, such as mail, to the mobile unit 10, even if the mobile unit 10 is inactive. (Perkins 7:37-40). In that context, the remote user is not sending paper mail with messages written in ink to mobile unit 10, but electronic mail. Consequently, the reference to "mail" refers to electronic mail. It is implicit that the electronic device the remote user employs to send the electronic mail has sufficient processing power to send electronic mail messages according to the protocols described in Perkins. If not, Perkins could not reasonably state, with respect to its disclosed communication system and protocols, that the remote user is enabled to send messages such as mail.

Thus, the device used by the remote user is an originating processor in that the electronic mail message originates from that device, and the electronic mail message originates from that processor because the electronic mail message is composed by and initially sent from that processor. In that context, the remote user's electronic mail constitutes originated information. Moreover, there are a plurality of remote users in Perkins. Because each originating processor enables and provides for the creation or putting together of an electronic mail message and sending the

⁴ Some mobile units 10 will have assigned pseudo-IP addresses. The condition "if a remote user obtains the pseudo-IP address of a registered mobile unit" serves to identify mobile units 10 to whom a remote user can send an electronic mail message.

message for routing to an intended recipient, the collection of originating processors, one per remote user, together constitutes an electronic mail system.

As is shown in Figure 2 of Perkins, global gateway 18 forms an interface between an electronic mail system comprised of the originating processors of the remote users and the RF transmission system comprised of header units 12 and local gateways 16. The global gateway 18 is positioned between the electronic mail system comprised of the originating processors of the remote users on one side and the RF information transmission network on the other. As is described in Perkins (Perkins 4:29-34):

The global gateway 18 is preferably a data processor having suitable network adaptors and an archival facility for storing packets addressed to particular ones of the mobile units 10 during a time when mobile units are not in contact with the wireless network.

Global gateway 18 is an interface switch which receives the remote-user originated electronic mail and passes it to the RF information transmission network comprising header stations 12 and local gateways 16.

In another embodiment, Perkins discloses that if a remote user is executing software to enable special handling of pseudo-IP addresses, the remote user is enabled to deliver the mobile unit 10 packets directly to the mobile unit's local gateway 16, without requiring the intervention of the global gateway 18. (Perkins 8:14-18). In that case, the local gateway 16 constitutes an interface between the remote users on one side and header stations 12 as RF information transmission network on the other.

According to Perkins, an IP address consists of four bytes the first two bytes of which encode or identify the associated LAN. (Perkins 4:39-43). Thus, in a pseudo-network containing mobile units 10, the pseudo-IP address of the mobile unit contains identification information, i.e., address, of the corresponding LAN with which the mobile unit is associated. Each LAN includes its own associated local gateway 16, which connects the LAN to global gateway 18 that further connects to remote users. In that context, the LAN identification code within the pseudo-IP address is also an address of the local gateway 16 for mobile unit 10. Thus, the pseudo-IP address of a mobile unit 10 not only identifies the RF Receiver that is mobile unit 10 but is also the address of the local gateway 16 which serves as an interface for transmission of electronic mail from a remote user to the mobile unit.

With regard to transmissions to mobile unit 10, in column 6, lines 28-35, Perkins states:

The local gateway 16 requests from the global gateway 18 all packets currently queued for the mobile unit 10 pseudo-IP address and delivers the packets over the downlink wireless channel. The global gateway 18 thereafter forwards to the local gateway 16 all future packets addressed to the pseudo-IP address associated, either temporarily or permanently, with the mobile unit 10.

The above-quoted text discloses that global gateway 18 ascertains from the electronic mail message which it receives from a remote user and intended for a mobile unit what is the pseudo-IP address to which the electronic mail message is addressed. On that basis, it is inherent that the pseudo-IP address of the mobile unit is included in the electronic mail message originating

from the remote user and intended for that mobile unit. If not, the pseudo-IP address would not be ascertainable from the electronic mail message.

Figure 2 illustrates a plurality of LANs, *i.e.*, LAN 2 and LAN 3, each including a plurality of header stations 12 and servicing a plurality of mobile units 10. In that regard, Perkins states (Perkins 3:56-61):

Referring to FIG. 2 there is illustrated a communications area network 1. The network 1 includes one or more local area networks (LANs) 2 and 3. Each LAN includes a wireless network comprised of a plurality of mobile communication units (MU) 10 in wireless communication with a plurality of header stations (HS) 12.

Because the mobile units receive electronic mail as ultimate recipients, each of them constitutes a destination processor. The collection of mobile units 10 associated with each header station together with the associated header station constitutes an electronic mail system. Alternatively, all of the header stations and mobile units served by each LAN together constitute an electronic mail system. In each case, there is a plurality of destination processors contained in an electronic mail system.

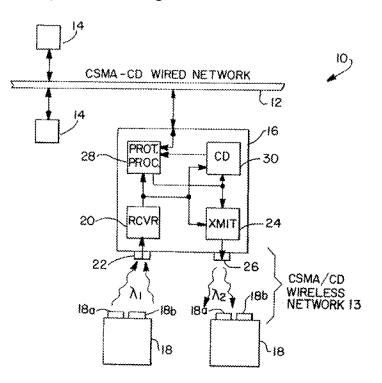
Hortensius

Hortensius describes a system for interfacing a wired communications network to a wireless communication network.

Fig. 1 reproduced below shows a wired network 12 connected to a wireless network 13 through a transceiver 16 which functions as an interface between the wired network 12 and the wireless network 13. Coupled to the wired network 12 are one or more nodes 14. Nodes 14 may include data processors, network servers and/or any of a number of conventional devices. (Hortensius 3:4-11).

Hortensius describes sending data from a wired node 14 to another wired node 14 or via the protocol processor 28 and transmitter 24, to one of the wireless nodes 18. Likewise, data (packet 40) may be directed from one of the wireless nodes 18, via the receiver 20 and transmitter 24, to another wireless node 18 or via the receiver and protocol processor 28 to one of the wired nodes 14. (Hortensius 4:13-20).

Thus, Hortensius describes transmitting data from an originating processor (at node 14) to a destination processor (node 14) through the wired network 12 (wireline) without using the RF transmission network 13.



Hortensius describes that the advantages of a wired and wireless network in combination provides for a low complexity and low cost transceiver for transparently coupling nodes of a wireless network to a local area wired network. (Hortensius 2:12-16).

Principles of law

In *KSR*, the Supreme Court rejected the rigid application of the "teaching suggestion or motivation" (TSM) test, instead favoring the "expansive and flexible approach" used by the Court. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 415 (2007). Based on its precedent, the Court reaffirmed the principle that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* at 416.

Analysis

According to NTP, Perkins does not disclose an "interface switch" or "originating processors," or an "electronic mail system," or "originated information." The position is misplaced, as it is based on NTP's unduly narrow interpretation of the claim terms. Our interpretation of those terms are explained in Section A of this opinion.

As we have explained in the findings above, the processor used by each remote user in Perkins constitutes an originating processor and there is a plurality of originating processors because there is a plurality of remote users. (Perkins Figure 2). The electronic mail sent by the originating processor constitutes originated information. Furthermore, as is explained in the findings above, the plurality of originating processors together constitute an electronic mail system. And as we have explained in the findings above, global gateway 18 constitutes an interface between the electronic mail system and a RF information transmission network comprising a local gateway 16 and associated header stations 12 in a LAN. (Perkins Figure 2).

NTP argues (Brief 106:9-15):

As was the case with Perkins, Hortensius does not teach or suggest, among other things, an "interface switch" or "originating processors" as those terms are properly defined and required by the independent claims of the '670 patent. In fact, as evidenced by the reference to Hortensius by Perkins at 4:5-10, Hortensius merely discloses a suitable embodiment for the header station 12 of the Perkins system. Thus, by merely disclosing a specific component capable of being used within the larger Perkins system, Hortensius fails to cure Perkins' deficiencies. (Emphasis added.)

The argument is misplaced, because Perkins does disclose an interface switch in global gateway 18 or local gateway 16 and originating processors which are used by the remote users to send electronic mail. Perkins has no deficiency in that regard.

We do not credit the testimony of Dr. V. Thomas Rhyne, NTP's technical witness, relied on by NTP in its arguments. (Rhyne Supplemental Declaration ¶ 56). Dr. Rhyne's interpretation of the claim terms is unduly narrow and reads extraneous features into the claims.

NTP further argues (Brief 106:16-19) that Hortensius does not disclose a plurality of "electronic mail systems," each of which transmits other information from its plurality of originating processors to its plurality of destination processors through a wireline without using the RF information transmission network. We have reviewed independent claims 1, 57, 113, 119, 125, 131, and do not find any limitation in those claims for a "plurality of electronic mail systems" each of which transmits information from its plurality of originating processors to its plurality of destination processors through a wireline without using a RF information transmission network. We have also reviewed independent claims 173, 177, 181, and

195, and note that none of them requires that in each of a plurality of electronic mail systems a plurality of originating processors transmit information to a plurality of destination processors through a wireline without use of a RF information transmission network. All of these claims require only the transmission of some originated information without use of a RF information network from one originating processor to one destination processor.

Even assuming that such limitations are in the claims, NTP is improperly attacking the references individually when the rejection is based on the combined teachings of the references. "Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references." *In re Merck & Co., Inc.,* 800 F.2d 1091, 1097 (Fed. Cir. 1986). The Examiner did not rely on Hortensius for these alleged features of the claimed invention.

NTP argues that Hortensius does not teach or suggest transmitting messages from an originating processor in an electronic mail system. (Brief 106:19-21). But the Examiner did not rely on Hortensius for that teaching. As we explained in our findings above, Perkins discloses transmissions from an originating processor in an electronic mail system. NTP argues (Brief 106:21-22) that Hortensius does not teach or suggest transmission to a plurality of destination processors in an electronic mail system through a wireline without using a RF information transmission network. However, none of the claims requires transmission to a plurality of destination processors without use of RF transmission, and the Examiner did not rely on Hortensius for the feature of transmitting electronic mail to a destination

processor without use of RF transmission. NTP is improperly attacking references individually when the rejection is based on the combined teachings of Perkins and Hortensius.

NTP acknowledges (Brief 107:13-15) that Perkins states (Perkins 7:37-44):

if a remote user obtains the pseudo-IP address of a registered mobile unit 10, the remote user is enabled to send messages, such as mail, to the mobile unit 10, even if the mobile unit is inactive.

NTP asserts that the above-quoted disclosure does not disclose an electronic mail system but only an addressing scheme which if properly implemented or effected may be used by an electronic mail system to transmit electronic mail messages among users. The position is misplaced.

It is implicit that the remote user makes use of a device with sufficient processing power to compose and send or initiate an electronic mail message for transmission to a mobile unit 10. That device constitutes an originating processor, and the processor itself constitutes an electronic mail system because it enables the remote user to compose and send an electronic mail message. We reject the excessively narrow meaning of "electronic mail system" urged by NTP. It does not have to involve email servers that run specialized email software and maintain an account for each subscriber or authorized user who can receive email on the server, and the originating processor does not have to run any specialized email software.

While it is true that the composing and sending of electronic mail is premised on whether the remote user obtains the pseudo-IP address of a registered mobile unit 10, we have explained in our findings that it is

implicit in Perkins that some mobile units would be so registered. The premise merely limits the sending of electronic mail to those units whose address is known. It is not a "may be" or imaginary electronic mail situation as NTP evidently suggests. NTP's argument that Perkins does not disclose a processor in an electronic mail system that initiates the transmission of an electronic mail message is without merit and rejected.

NTP's argument that Perkins does not disclose transmission of originated information from one of a plurality of originating processors contained in an electronic mail system to at least one RF receiver by use of an RF information transmission network is also rejected. As we have determined in our findings, the collection of originating processors, one per remote user, together constitute an electronic mail system, and an originating processor in that electronic mail system sends electronic mail as originated information through an RF information transmission network to a mobile unit 10 which constitutes a RF receiver. NTP's argument is premised upon an unduly narrow interpretation of the various claim terms, *e.g.*, "originated information," "originating processor," "electronic mail system," and "RF information transmission network." The argument that the remote users and mobile units of Perkins are not part of an electronic mail system is incorrect.

Similarly, the argument that because Perkins does not disclose an electronic mail system it does not disclose a destination processor is also incorrect. Perkins does disclose an electronic mail system. As we have determined in our findings, because the mobile units receive electronic mail as ultimate recipients, each of them constitutes a destination processor. The collection of mobile units 10 associated with each header station together

with the associated header station constitutes an electronic mail system. Alternatively, all of the header stations and mobile units served by each LAN together constitute an electronic mail system. In each case, there is a plurality of destination processors in an electronic mail system.

NTP argues that Perkins does not teach or suggest an "RF information transmission network." (Brief 110:4-6). The position is without merit, as it is based on an unduly narrow interpretation of the claim term. As we explained in Section A of this opinion on the matter of claim interpretation, "RF information transmission network" does not require a minimum substantial geographic coverage area. Perkins discloses a plurality of header stations 12 in each LAN servicing separate but overlapping ranges. (Perkins Figure 2). The plurality of header stations in each LAN constitutes a network. The wide-area wireless distribution argued by NTP is simply not a requirement of the appealed claims. Alternatively, the plurality of header stations of all LANs constitute the network, and together they would cover a wide or substantial geographic area extending beyond a single local area.

NTP argues that Perkins does not disclose transmission of originated information with an address of an interface, wherein the interface is capable of transmitting electronic mail messages to a wireless system for delivery to a mobile processor. (Brief 112:22-24). The argument is without merit because (1) none of the rejected claims require that an address of the interface be transmitted together with the originated information, and (2) we have explained in our findings that the global gateway 18 is an interface which connects an electronic mail system comprised of the originating processors of the remote users to an RF information transmission network

and passes electronic mail from the electronic mail system to the RF information transmission network. The rejected claims only require transmission of the originated information "in association with" an address of the interface, and the Examiner persuasively explained how that feature is embodied in Perkins' disclosure. (Answer 192:3 to 193:9). NTP has not shown why the Examiner's analysis is incorrect.

With respect to claims 4, 24, 60, 80, 90, 114, 120, 126, 132, 174, 178, 182, and 186, NTP asserts that the Examiner did not address the limitation in these claims that each RF receiver transfers originated information to a different one of the plurality of destination processors. (Brief 114:1-9). We have carefully reviewed these claims but see no such limitation in claims 114, 120, 126, 132, 174, 178, 182, and 186.

Claims 4, 24, 60, 80, and 90 do contain such a feature but we note that in these claims the recited RF receiver is said to be within the RF information transmission network which transmits originated information to the destination processor and is not defined as a device which receives RF transmission of originated information from the RF information transmission network. With regard to this feature, the Examiner states (Answer 51:1-2):

Perkins discloses that the destination processor is connected to the RF system using an RF receiver (12, col 4, lines 1-38), which would transfer the received data to the processor.

It is manifestly evident that the Examiner has not addressed the limitation that each RF receiver has to transfer originated information to a different one of the plurality of destination processors. On page 194 of the Answer, the Examiner explains that because the claims recite just "at least one RF receiver," there need only be one RF receiver and therefore the sending of

information from one RF receiver to one destination processor meets the feature of "each RF receiver transferring the originated information to a different one of the plurality of destination processors." The explanation is unpersuasive. Insofar as the claims initially recite "at least one RF receiver," the subsequent recitation of "each RF receiver" transferring information "to a different one of the plurality of destination processors" makes it unreasonable to regard the limitation so broadly as to cover only a single RF receiver sending information to a single destination processor.

Furthermore, according to these claims, it is the originated information transmitted from the interface to the RF information transmission network and from the RF information transmission network to the destination processors which is transferred from each RF receiver to a different one of the plurality of destination processors, and not just any data received by the RF receiver. The Examiner also has not accounted for that feature in the analysis. It would be unreasonable to regard originated information sent by wire from remote users through the global gateway 18 and local gateway 16 to header station 12 as that which is received by a RF receiver and then transferred to destination processor by the RF receiver via RF transmission. While it is reasonable to regard header station 12 as including a RF transmitter and a RF receiver, the RF receiver component receives information through wireless RF transmission rather than by wireline and is not itself the RF transmitter.

With regard to claims 19, 29, 75, 85, 95, 137, 146, 155, 164, 189, 198, 207, and 216, NTP points out that each of these claims require the interface to remove from the originated information certain information added by the

electronic mail system, and to add certain information used by the RF information transmission network. NTP then argues that the Examiner did not "point to the teaching of Perkins to show the claimed operation" but merely noted that Perkins uses TCP/IP and referred to a RFC document which explains what is TCP/IP protocol. (Brief 114:10 to 115:4).

The argument is misplaced. Because Perkins specifically discloses that its system uses TCP/IP protocol, what is TCP/IP protocol need not be expressly explained within Perkins but can be proven by the Examiner by way of other documents, such as the RFC 1009 document relied upon by the Examiner. In that regard, note that NTP does not challenge as incorrect the Examiner's description of how TCP/IP works based on the RFC 1009 document, *i.e.*, the deletion at a gateway of information added by the electronic mail system to the original electronic mail and the addition of the address of the next node to receive the electronic mail. (Answer 51:8-16). It is not a matter of the Examiner's merely showing how Perkins "could have" operated. The Examiner determined that that is how Perkins operates. NTP has not shown error in that determination.

Dependent claims 20, 30, 76, 86, and 96 are separately argued by NTP. Claim 20 depends from claim 4. Claim 76 depends from claim 60. Claim 96 depends on claim 90. We have explained above why the Examiner has failed to address all the limitations of claims 4, 60, and 90. Accordingly, the Examiner has also failed to address each limitation of claims 20, 76, and 96, and we need not further discuss claims 20, 76, and 96.

With regard to claims 30 and 86, each requires the destination processor to use a control program to control the transfer of stored

information from the memory of a RF receiver to a memory of the destination processor. But we note that in these claims the recited RF receiver is said to be within the RF information transmission network which transmits originated information to the destination processor and is not defined as a device which receives RF transmission of information from the RF information transmission network.

The Examiner states (Answer 51:26 to 52:1):

Perkins discloses that RF receiver 12 signals the destination processors 10 on a transmission medium, and that the RF receiver stores (buffers) the originated information in a memory (col 8 lines 2-7, col 6 lines 42-52), and that a destination processor may control the flow of the originating data from the RF receiver to the destination processor (col 5 line 52-65) inherently using a stored program

The above-quoted determination of the Examiner is conclusory and does not account for the fact that the RF receiver 12 identified by the Examiner is not ever in physical and wired contact with any mobile unit 10 as a destination processor. It is uncertain, and unexplained, why a destination processor which receives RF transmission from a RF information transmission network would necessarily and thus inherently control the transfer of information from within a memory of a RF receiver contained within that RF information transmission network. In addition, we have read the cited portions of Perkins in the above-quoted determination, and find that they do not support the assertions made by the Examiner.

Conclusion

NTP has shown that the Examiner erred in rejecting claims 4, 20, 24, 30, 60, 76, 80, 86, 90, and 96 under 35 U.S.C. § 103 as unpatentable over Perkins and Hortensius.

On balance, upon weighing all of the evidence together as a whole, including the evidence of nonobviousness which we discuss in another section of this opinion, we conclude that NTP has not shown error in the rejection of claims 1, 19, 21-23, 29, 31-33, 57, 75, 77-79, 85, 87-89, 95, 97-99, 113, 114, 119, 120, 125, 126, 131, 132, 137, 146, 155, 164, 173, 174, 177, 178, 181, 182, 185, 186, 189, 198, 207, and 216 under 35 U.S.C. § 103 as unpatentable over Perkins and Hortensius.

2.

The obviousness rejection of claims 53-56, and 109-112 under 35 U.S.C. § 103 over Perkins, Hortensius and the inventors' admitted prior art

The Examiner finally rejected claims 53-56 and 109-112 under

35 U.S.C. § 103 as unpatentable over Perkins, Hortensius, and the inventors' admitted prior art.

We reverse.

Issue

Has NTP shown error in the Examiner's rejection of claims 53-56 and 109-112 under 35 U.S.C. § 103 as unpatentable over Perkins, Hortensius, and the inventors' admitted prior art?

Analysis

The admitted prior art is an electronic mail system shown in Figure 1 of the '670 patent and described in the "Background Art" section of the

'670 patent as being in commercial use by entities such as the AT&T Corporation. ('670 patent 1:66 to 2:1).

NTP argues that the admitted prior art does not provide an "interface" or disclose "originated information transmitted in association with an address of the one interface." (Brief 116:8-11). On that basis, NTP asserts that the admitted prior art does not cure the deficiencies of Perkins.

The argument is without merit. NTP has not shown that the Examiner was incorrect in determining that Perkins discloses an interface and also the transmission of originated information in association with an address of the interface. Thus, Perkins has no deficiency in that regard. Also, the admitted prior art discloses an interface represented by the Host CPU in Box #2 of Figure 1, and the Examiner did not rely on the admitted prior art to satisfy the feature of transmitting originated information in association with an address of the interface.

However, claims 53-56 indirectly depend from claim 4, and claims 109-112 indirectly depend from claim 76. We have already determined above that the Examiner failed to account for all the limitations of claims 4 and 76. The deficiency is not made up by any analysis of the Examiner pertaining to claims 53-56 and 109-112. Accordingly, the rejection of claims 53-56 and 109-112 cannot be sustained.

Conclusion

NTP has shown that the Examiner erred in rejecting claims 53-56 and 109-112 under 35 U.S.C. § 103 as unpatentable over Perkins, Hortensius, and the inventors' admitted prior art.

G. Secondary Considerations / Objective Evidence of Nonobviousness

Introduction

Obviousness factual inquiries include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. Graham v. John Deere Co., 383 U.S. 1, 17 (1966). Notwithstanding what the teachings of the prior art would have suggested to one with ordinary skill in the art at the time of NTP's invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the claimed invention would not have been obvious to one with ordinary skill in the art. In re Piasecki, 745 F.2d 1468, 1471-1472 (Fed. Cir. 1984). Secondary consideration factors include (1) unexpected results, (2) commercial success, (3) satisfaction of long-felt need, (4) failure of others, and (5) copying by others. E.g., Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 291 (Fed. Cir. 1985), cert denied 469 U.S. 857 (1984); Perkin-Elmer Corp. v. Computervision Corp., 732 F.2d 888, 894 (Fed. Cir. 1984). NTP has alleged (1) commercial success, (2) industry recognition, (3) satisfaction of long-felt but unresolved need, (4) failure of another to design around its invention, (5) licensing of the invention to others and (6) copying of its invention by another.

To be of relevance, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kulling*, 897 F.2d 1147, 1149 (Fed. Cir. 1990); *In re Grasselli*, 713 F.2d 731, 743 (Fed. Cir. 1983); *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971) (evidence of success for cups is not commensurate in scope with containers). During prosecution

before the USPTO, that a species or subgenus of a claimed invention might have been nonobvious does not equate to nonobviousness of a broader generically claimed invention. *In re Muchmore*, 433 F.2d 824, 826 (CCPA 1970).

In patent law, "the name of the game is the claim." *In re Hiniker*, 150 F.3d at 1369. The *Hiniker* court stated, *id*.:

Hiniker's proffered facts, including its evidence of secondary considerations of nonobviousness, are not commensurate with the claim scope and are therefore unpersuasive. The invention disclosed in Hiniker's written description may be outstanding in its field, but the name of the game is the claim. [Citation omitted.]

There must be a demonstrated "nexus" between the merits of the claimed invention and the evidence of secondary considerations before that evidence is accorded substantial weight in an obviousness determination. *Simmons Fastener Corp. v. Illinois Tool Works, Inc.*, 739 F.2d 1573, 1575 (Fed. Cir. 1984), *cert. denied* 471 U.S. 1065 (1985); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1539 (Fed. Cir. 1983); *see also In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996); *In re Fielder*, 471 F.2d 640, 646 (CCPA 1973). "Nexus" is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). In the absence of an established nexus with the claimed invention, secondary consideration factors such as commercial success, satisfaction of a long-felt but unresolved need, licensing and copying by others are not entitled to much, if any, weight and generally have no bearing

on the legal issue of obviousness. *See In re Vamco Mach. & Tool, Inc.*, 752 F.2d 1564, 1577 (Fed. Cir. 1985).

During prosecution before the USPTO, the applicant for patent bears the burden of demonstrating nexus between the objective evidence of nonobviousness and the claimed invention. *In re Paulsen*, 30 F.3d at 1482; *In re Huang*, 100 F.3d at 140.

NTP bears the burden of proof. At this point we wish to observe that the burden of proof on rebuttal evidence to commercial success and other socalled secondary considerations in an infringement context is different from that in an ex parte context. As *Demaco* reveals, the burden of proof on "nexus" in an infringement context is on the patentee. Demaco Corp., 851 F.2d at 1392. Demaco goes on to say that a prima facie case of nexus is generally made out when the patentee shows both that there is a commercial success and that the thing that is commercially successful is the invention disclosed and claimed in the patent. Id. The phrase "disclosed and claimed" can be read as meaning an embodiment "disclosed" in the specification and "covered" by the claim (i.e., within the scope of the claim) of the patent. When the patentee has presented a prima facie case of nexus, the burden of coming forward with evidence in rebuttal shifts to the challenger. Id. at 1393. The Federal Circuit's rebuttal holding makes sense in an infringement context due to the liberal discovery provisions available under the Federal Rules of Civil Procedure. In an exparte context, however, a different practice is more appropriate. First, an Examiner is not a party rather an Examiner is a quasi-judicial official acting on the record presented by the applicant, or in this case, the reexamination patentee. As an objective

decision maker, an Examiner has no axe to grind. An accused infringer has an axe to grind. Second, upon evaluation of any showing made, the USPTO points out short-comings in the evidence which the applicant or patent owner can then address. The discovery available under the Federal Rules of Civil Procedure is not a "tool" commonly used by examiners. Accordingly, the "rebuttal" practice of *Demaco* does not fit well into the patent application or patent reexamination process. The same is true in third-party reexaminations, because a third-party requester has only limited opportunity to submit evidence and cannot "go after" evidence using the Federal Rules of Civil Procedure discovery techniques during proceedings in the USPTO. The USPTO can make observations on the evidence and it is up to the applicant or patentee, as the case may be, to provide evidence and answers to those observations.

In an attempt to satisfy its burden, NTP has submitted (1) a declaration of its President, William C. White, (2) a supplemental declaration of its President, William C. White, and (3) portions of the trial transcript, from the patent infringement suit filed by NTP against RIM, of the testimony of (a) NTP's witness Terry Lee Musika and (b) RIM's witness Murali Narayanan.

For reasons discussed below, NTP's evidence of nonobviousness factually is not commensurate in scope with the invention claimed by NTP. NTP also has failed to establish the required nexus between the claimed invention and the proffered evidence of nonobviousness. Contrary to NTP's contention, there is convincing affirmative evidence that features in addition

to those required by NTP's claims lie at the foundation of the secondary consideration factors alleged by NTP.

Discussion

1. Alleged Industry Recognition and Satisfaction of Long-Felt but Unresolved Need

According to the specification of the NTP '670 patent, what makes NTP's disclosed invention useful and advantageous over the prior art are the following characteristics of the RF receiver used by NTP in its invention to receive wireless email messages intended for a destination processor (17:51-61; 21:29-35; 22:58 to 23:3; 23:7-16):

(1) the RF receiver is detachable from the destination processor and operates to wirelessly receive the email messages while it is detached from the destination processor;

(2) the RF receiver includes its own memory to store the received email messages intended for the destination processor and does not require power from the destination processor to receive and store those messages; and

(3) the RF receiver provides reception and review of email messages without need of the destination processor for which the email messages are intended.

In column 17, lines 51-61, the NTP '670 patent describes:

Storage in the RF receiver memory permits the reception of the information without a connection of the RF receiver to the destination processor thus eliminating the requirement that the destination processor is turned on and carried with the user of the destination processor. In a typical application with a portable PC functioning as the destination processor, it is important that reception of the information by the RF receiver

> does not require the drawing of power from the PC battery. The RF receiver automatically relays the information to the destination processor upon connection of the RF receiver to the destination processor.

The NTP '670 patent further describes in column 22, line 58 to

column 23, line 17 (emphasis added):

An important aspect of the present invention is that reception and review of electronic mail can be performed without connection of the RF receiver 119 to the destination processor A-N which permits the receiver to function as a mobile electronic mail receiver. As a result, the user may move from the site of the destination processor A-N either within an office or other location or during travel while receiving electronic mail which was not possible with the prior art. Furthermore, the connection of the RF receiver 119 to the destination processor automatically transfers the electronic mail stored within the memory of the RF receiver to the destination processor without manual keyboarding.... As a result, the deficiencies of the prior art in requiring substantial expense consequent from the making of telephone calls, substantial labor resultant from the lost time of persons making telephone calls and the inability to deliver electronic mail messages and the more difficult problem of delivering electronic mail messages to portable processors is overcome.

We have not been able to find a clear description in the specification of the NTP '670 patent of any embodiment that does not have a detachable RF receiver with its own memory to enable it to receive and store email messages in the absence of the destination processor for which the email messages are intended. Likewise, we have not been able to find any portion of the NTP '670 patent specification that clearly identifies an RF receiver that is (1) inseparable from the destination processor, (2) includes no

memory unit, or (3) depends on an attached destination processor to receive and store email.

As is described in NTP's specification, the alleged advantage NTP's invention provides over the prior art requires an RF receiver which (1) is detachable from the destination processor to which email messages are intended, and (2) includes its own memory for storing email messages received by the RF receiver in the absence of the destination processor. The stored messages are later transferred to the destination processor when the RF receiver is attached to the destination processor. Even without the destination processor connected thereto and turned on, the RF receiver can receive wirelessly transmitted email messages, and store them until the RF receiver is connected to a destination processor. No email message would be missed by the RF receiver even if the destination processor is turned off or not carried with the user.

Statements appearing in NTP's appeal brief indicate something similar. NTP's appeal brief on page 124, lines 11-14, states:

The transmission to the RF receiver was advantageous because it eliminated the requirement that a destination processor be [1] turned on and [2] carried with the user and [3] connected to a telephone jack in order for the user to receive email messages.

NTP's specification does not indicate, and NTP does not assert, that simply providing for receipt by an RF receiver of wirelessly transmitted email messages intended for a destination processor represents why its invention is advantageous with respect to the prior art. Rather, the focus is

on a "detachable" RF receiver which (1) has its own "memory" and (2) receives email messages even in the absence of the destination processor.

Similarly, the declaration testimony of NTP's President William C. White under 37 C.F.R. § 1.132 demonstrates that the alleged industry recognition is directed to a system using a detachable RF receiver with its own memory, which receives email even when the destination processor is not turned on, not carried with the user, or not connected. In describing the industry recognition for NTP's invention, William C. White states in paragraph 16 of his declaration dated June 17, 2005:

16. The inventions claimed in the NTP patents relate to the integration of electronic mail systems with RF wireless communications networks. *See, e.g.*, '670 Patent, Col. 17, l. 41 to Col. 21, l. 56. In simplified terms, a message originating in an electronic mail system may be transmitted not only by wireline but also via radio frequency (RF), in which case, it is received by and stored on a user's mobile RF receiver. The transmission to the RF receiver was advantageous because it eliminated the requirement that a destination processor be turned on and carried with the user and connected to a telephone jack in order for the user to receive email messages. *See, e.g.*, '670 Patent, Col. 17, ll. 51-55. Almost immediately, the industry recognized the significance of the inventions. (Emphasis added.)

The above-quoted testimony of NTP's President indicates that the purported industry recognition of NTP's invention comes from its ability to have wireless email received by an RF receiver which has its own memory to store the email and which receives email even when the destination processor is not turned on or is not carried with the user. The testimony is consistent with the advantages of the invention as stated in NTP's

specification. The RF receiver receives and stores email without the destination processor.

However, none of NTP's claims on appeal requires an RF receiver which is "detachable" from the destination processor, which includes its own memory, "and" which operates to receive and store email messages in the absence of the destination processor. Additionally, as we have pointed out earlier in this opinion, with respect to those claims which do require a memory within a RF receiver, the RF receiver is located within the RF information transmission network which still must make RF transmission to a destination processor and is not defined as receiving RF transmission from the RF information transmission network.

The testimony of William C. White continues in paragraphs 17 and 18 of the same declaration, which are reproduced below:

17. Indeed, when the inventors demonstrated the claimed inventions to AT&T in September 1990, AT&T requested that the technology be adapted for demonstration at the upcoming Comdex Show in November 1990. See Declaration of Thomas J. Campana, Jr. Pursuant to 37 C.F.R. § 1.131 at ¶s 24-31.

18. After witnessing the demonstration of the invention, AT&T also requested that the technology be implemented with its new Safari laptop computer. *Id*.

While the testimony refers to the claimed invention, no description is given as to the specific embodiment that is said to have been demonstrated to AT&T. NTP represents that the demonstration shown AT&T was a reduction to practice of the invention of the independent claims. Assuming NTP is correct, the fact remains that both an embodiment using a detachable

RF receiver with its own memory and an embodiment using a nondetachable RF receiver without its own memory fall within the broad scope of NTP's claims.

Since it could have been an embodiment using a detachable RF receiver with its own memory and receiving electronic mail in the absence of an attached destination processor that was shown, and that such a RF receiver is not required by the claims, NTP has not shown by a preponderance of the evidence the relevance of AT&T's supposed response as objective evidence of nonobviousness of the claimed invention.

Furthermore, we decline to credit the testimony in paragraphs 17 and 18 reproduced above for other independent reasons. NTP presented and explained no testimony of any AT&T personnel who supposedly witnessed the demonstration. We therefore have no direct testimony which indicates any AT&T personnel impression of the demonstrated invention and the reasons for such impression. Requesting that the demonstration be repeated again at an upcoming computer industry trade show for computers and requesting that the invention be demonstrated with a different destination processor are less than direct indications of a positive recognition and even less indication of the extent of the recognition. It is only widespread recognition in the art that constitutes objective evidence of nonobviousness, not just positive recognition from a few. *See, e.g., Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 1574 (Fed. Cir. 1986). Also, such a response does not indicate the existence of a "long-felt and unresolved" need in the industry for the demonstrated invention.

NTP's Brief (125:9-13) refers to the trial testimony in the infringement litigation between NTP and RIM of inventor Thomas J. Campana, Jr. The trial testimony is said to support NTP's assertion of industry recognition and satisfaction of a long-felt but unresolved need. The cited testimony concerns a demonstration of the invention at a 1990 Comdex Trade Show for computers in conjunction with AT&T's Safari laptop computer, and appear on pages 149-152, and 177-180 of the trial transcript. We have reviewed the cited testimony of Thomas J. Campana, Jr. and do not credit it with any substantial weight.

Campana's testimony describes how AT&T's customers at the trade show reacted to a demonstration of NTP's invention implemented on an AT&T computer. Campana states that the reaction ranked from disbelief to a request to hold the RF receiver in the customer's own hand and see if an email message sent anew would actually be received. (Trial Transcript 151 and 178-180). Campana also states that the customers even suggested using the RF receiver with an office computer rather than just a portable laptop computer as was used at the trade show. (Trial Transcript 151). Campana states that at the trade show AT&T had shown the invention to several hundred customers including Sears, Xerox Corporation, and United Parcel Service. (Trial Transcript. 178). We have not heard from Sears, Xerox or UPS. Campana cites to a letter or report that he is said to have written which is said to indicate that customer response to the NTP invention was "overwhelming." (Trial Transcript 178-179). It is uncertain whether a copy of that letter or report has been submitted by NTP. NTP did not inform us where a copy can be located in the record of this appeal or whether it even

exists in the record of this appeal. Campana notes in particular that an Executive from Xerox Corporation is said to have been in disbelief about the invention and specifically asked to have the RF receiver detached from the computer so that he could see if the receiver would actually receive the wireless email and then transfer it to the computer when the RF receiver and the laptop computer are connected.

Campana's testimony is not corroborated by the testimony of any one of the hundreds of AT&T customers who are said to have been shown the invention at the trade show. Campana's testimony is not corroborated by the testimony of any AT&T personnel who are said to have conducted the demonstration at the trade show. Campana's testimony is not corroborated by any press or media report about the trade show. Campana's testimony is not corroborated by the testimony of any person who might have been in attendance at the demonstration and witnessed the response of the AT&T customers.

It is also not entirely clear from the portions of the Trial Transcript cited by NTP that Campana himself was in attendance at the demonstration to witness any responses first hand. In any event, assuming that he was present, and that he witnessed the demonstration to the hundreds of people who are said to have visited AT&T's setup at the trade show at various different times, there is still essentially only the testimony of an inventor and his own report on how overwhelmingly positive the reaction supposedly was from people who were shown a demonstration of his invention.

Paragraph 19 of the declaration of NTP's President William C. White refers to the trial testimony of one witness identified as "RIM's own

witness" as confirming the allegedly "overwhelmingly positive reaction by industry customers" at the 1990 Comdex Trade Show. We have read the cited pages of the trial transcript, *i.e.*, pages 1264-1265, and note that they do not indicate (1) the name or identity of the witness, (2) the employer of the witness, (3) the role of the witness at the 1990 Comdex Trade Show, or (4) the extent to which he or she actually witnessed a demonstration to hundreds of customers who are said to have visited AT&T's setup at the show at various times.

The cited testimony of "RIM's own witness" does not support NTP's assertion. Notably, the witness did not agree to characterize NTP's invention a "big breakthrough," and also declined to go along with the questioner's suggestion that Sears, United Parcel Service, and Xerox Corporation were ecstatic about what they saw. Pertinent portions of the testimony are reproduced below (Exhibit 1036):

Q And these customers, Sears, United Parcel Service, and Xerox were, to put it mildly, ecstatic about what they saw, weren't they?

A They liked the capabilities of sending wireless messages to laptop computers.

Q No doubt about it. This was a big breakthrough.

A. I don't know whether I would call it a big breakthrough, but that's a capability that they liked. It was impressive when you see it for the first time that wireless messaging to your laptop computer was useful.

That one witness characterized a demonstration of NTP's invention at the 1990 Comdex Trade Show as something three customers out of hundreds

who saw the demonstration "liked" does not establish widespread industry recognition and does not support NTP's assertion that there was a significant long-felt but unresolved need in the industry for NTP's invention or that there was an "overwhelming positive reaction by industry customers." Neither does the observation that the invention was useful.

On page 130 of NTP's brief, NTP identifies the witness referred to in William C. White's declaration as "RIM's own witness" as Murali Narayanan, but does not (1) state his employer, (2) explain his role at the 1990 Comdex Trade Show or (3) the extent to which he witnessed the demonstration to the hundreds of AT&T customers. On page 130 of NTP's appeal brief, NTP cites pages 1265-1266 of the trial transcript containing the trial testimony of Murali Narayanan as supporting the assertion that "customers expressed disbelief that such a product could work." We find no such testimony in the cited portions of the trial transcript. Rather, we see that the witness rebuffed the questioner's suggestion that the customers were expressing incredible disbelief at what they were seeing. Pertinent portions of the testimony are reproduced below:

Q And it is true, because you were there for at least part of that meeting, it is true that some of your customers were expressing incredible disbelief at what they were seeing.

- A They liked what they saw.
- Q No doubt about it.
- A No doubt.

Given the interest Campana had in his own invention, we decline to credit the evidence stemming solely from the co-inventor himself,

particularly in the absence of corroborating evidence from (1) the customers who were shown the invention, (2) AT&T personnel who conducted the demonstration, and (3) press and media who might have reported on the 1990 Comdex Trade Show. Moreover, Campana had specific recollection only of the reaction from one customer out of hundreds, the one said to be representing Xerox Corporation. As to the rest, he has no specific recollection and the testimony is too vague and general to be of value. It is uncertain what portion of the hundreds shared a similar reaction and what portion did not.

It is significant that although hundreds of customers allegedly saw the demonstration at the 1990 Comdex Trade Show, NTP filed no testimony from a single customer about the customer's impression or evaluation of NTP's invention. Furthermore, without direct testimony from customers, even assuming that the customers were impressed, we do not know the reasons why they were impressed and how impressed they were. Also, being impressed about an invention does not establish, as NTP suggests, that there was a long-felt but unresolved need solved by the invention.

The testimony of Murali Narayanan, who NTP simply calls RIM's witness in the infringement trial, does not help NTP. As is made evident through the testimony quoted above, Narayanan declined to go along with the questioner's suggestion (1) that NTP's invention as demonstrated at the 1990 Comdex Trade Show was a big breakthrough, (2) that Sears, United Parcel Service, and Xerox Corporation were ecstatic about what they saw, and (3) the customers at the trade show were expressing incredible disbelief at what they were seeing.

Based on inventor Campana's own description, the demonstration at the 1990 Comdex Trade Show involved a RF receiver that (1) was detachable from the AT&T Safari laptop computer and (2) included its own storage to hold the wirelessly received email message when it is not connected to the laptop computer. According to NTP's own specification, the detachable RF receiver with its own memory is what provides NTP's invention important advantages over prior art. As we have noted above, none of NTP's claims on appeal requires an RF receiver which (1) is detachable from the destination processor, (2) includes its own memory unit, and (3) operates to receive wireless email when the destination processor is not connected to the RF receiver and not turned on.

Accordingly, NTP's alleged industry recognition based on the demonstration at the 1990 Comdex Trade Show is not commensurate in scope with what NTP has claimed. Also, assuming that the advantages stated in NTP's specification are what made NTP's demonstration a success, NTP has not shown nexus between the full scope of the claimed invention and the evidence of nonobviousness.

NTP's alleged long-felt but unresolved need argument depends on use of a detachable RF receiver which includes its own memory and which operates to receive wireless email even when the destination processor is turned off and not connected. Because NTP's claims are broader and do not require such an RF receiver, NTP has not shown nexus between its solution and the claimed invention. We are unable to find that the evidence of nonobviousness is commensurate in scope with NTP's claimed invention.

Furthermore, satisfaction of a long-felt but unresolved need is not evidence of nonobviousness unless it is shown that widespread efforts of skilled workers having knowledge of the prior art had failed to find a solution to the problem. In re Allen, 324 F.2d 993, 997 (CCPA 1963). See also Toledo Pressed Steel Co. v. Standard Parts, Inc., 307 U.S. 350, 356 (1939). NTP has not directed our attention to evidence that there was widespread attempt by skilled workers in the art for a long period of time to send an email message wirelessly to a destination processor, and that all such attempts failed to achieve successful transmission. NTP does not identify and explain what technical problem was solved by NTP's invention which had allegedly kept the entire field of skilled workers from successfully transmitting an email message wirelessly to a destination processor despite repeated and serious attempts to do so over a long period of time. NTP has not established that wireless transmission of an email message had been a long-felt but unresolved need at the time of NTP's invention. Lastly, NTP has failed to establish that persons actually working in the field were aware of the teachings of the prior art cited by the Examiner. That wireless transmission of email is desirable does not mean widespread efforts were involved in implementing it and that all such efforts ended in failure for a long period of time until NTP attempted to do the same.

2. Alleged Commercial Success

According to NTP, there is "commercial success" because NTP successfully sued RIM for infringement of the NTP '670 patent by a

certain BlackberryTM device of RIM. On page 126 of its Appeal Brief, NTP states:

In fact, Judge Spencer -- the presiding judge in the litigation between the Patent Owner and RIM -- commented on the compelling strength of Patent Owner's evidence of commercial success: "Furthermore, [Patent Owner] offered irrefutable evidence of nonobviousness in the form of tremendous commercial success of the infringing Blackberry products, which indicated the satisfaction of "long-felt" need. *See* White Dec. ¶ 5.

Also on page 126 of its Appeal Brief, NTP states: "Indeed, at trial, there was evidence that the \$405M of RIM's infringing sales were due to the inventions described in the NTP patents." (Emphasis added.) *See* White Dec. \P 21.

NTP does not describe for us the components or manner of operation of the infringing BlackberryTM devices. It appears to be NTP's legal position that it does not matter what components RIM's BlackBerryTM device has or how RIM's BlackBerryTM device operates as long as the device infringes and falls within the scope of an NTP claim. Note NTP's argument on page 130, line 7, of the appeal brief that "[t]hat the BlackBerryTM system meets the language of the claims is beyond dispute." NTP's position regarding the law is simply wrong, being inconsistent with binding precedent cited above and which governs prosecution before the USPTO.

As is discussed above, NTP's claims are so broad that they can be infringed by a system having either (1) an RF receiver which is detachable from the destination processor, which includes its own memory, and which

receives email even when the destination processor is not turned on or is not connected, or (2) an RF receiver that does not share those attributes. In case of the latter, the alleged commercial success (1) does not have much to do with what NTP's own specification states are important advantages of the invention over the prior art, and (2) is not commensurate in scope with the claimed invention. Also in the case of the latter, NTP has not shown "nexus" between the alleged commercial success and the claimed invention.

NTP's not describing the components and operation of the infringing devices precludes us from ascertaining whether they embody a technical breakthrough beyond a detachable RF receiver with its own memory, which can account for the alleged commercial success. For instance, it cannot be ruled out that the devices sold do not use a detachable RF receiver with its own memory but yet still permit user access of email messages whenever the user desires access without requiring the destination processor to be turned on and carried with the user all the time.

Citing a U.S. District Court decision which was affirmed by the Federal Circuit, *Rite-Hite Corp. v. Kelley Co.*, 629 F.Supp. 1042, 1055-56 (E.D. Wis. 1986), *aff'd*, 819 F.2d 1120 (Fed. Cir. 1987), NTP argues in its appeal brief on page 133, lines 13-15: "the fact that the BlackberryTM system [of RIM] includes unclaimed features, such as its small size, should in no way obscure the fact that it was and still is an incredibly successful product that embodies the '960 Patent claims as affirmed by the CAFC." We have reviewed the Federal Circuit's decision on appeal from the Eastern District of Wisconsin. The issue of nexus with respect to secondary consideration factors is simply not discussed in the Federal Circuit opinion.

Also, the involved patent here is NTP's '670 patent, not the '960 patent. The district court's opinion, which is not binding authority for the Board, does not support the notion that unclaimed but important features in a commercial product fail to undermine the patent owner's assertion of nexus between the alleged commercial success and the claimed invention. They do, under Federal Circuit precedent requiring a showing of nexus already discussed above. The U.S. District Court's decision in Rite-Hite Corp., *supra*, is not much different, because the court determined that specific patented features were a significant cause of the product's commercial success. *Rite-Hite Corp.*, 629 F. Supp. at 1055. NTP has not shown that that is the case here. NTP simply has not shown that the merits of NTP's invention, in particular the advantages described in NTP's specification, constitute a significant cause of RIM's sales. NTP does not even allege that RIM's BlackberryTM devices include a detachable RF receiver with its own memory, which provides the advantages of NTP's invention as stated in the specification.

Also, for example, NTP has not directed our attention to evidence that the difference in size between that of a laptop computer and a hand held cell phone is not a significant factor adding to the sales of RIM's BlackberryTM devices. All of NTP's disclosed embodiments are directed to laptop or notebook sized computers, not hand-held cellular telephones. NTP's specification touts as an advantage the ability for the user to simply carry the RF receiver rather than the laptop computer as we have discussed above. The size of the device does matter. We seriously doubt that if RIM's

BlackberryTM devices were as big as a typical laptop or notebook computer, their sales and market share would be the same.

Note also that NTP refers to evidence presented at the infringement trial that RIM's infringing sales were due to the inventions "described" in the NTP patents. The focus is misplaced. NTP must establish a nexus between the evidence of nonobviousness and the "claimed" invention, not between the evidence of nonobviousness and the invention "disclosed" in its specification. *In re Tiffin, supra*; *In re Fielder, supra*. The disclosed invention requires as a key component an RF receiver which is detachable from the destination processor and which includes its own memory, so that the RF receiver can receive and store email even when the destination processor is not turned on or is not connected. That feature, however, is not required by any NTP claim.

In its appeal brief (Brief 130:1-4), NTP cites to the trial testimony of its own witness Terry Lee Musika (Trial Transcript 620):

the ability to access email in real time and return messages with RIM's Blackberry is a breakthrough. . . . And that really relates to both the commercial success, again, and the advantages over the old mode. (Emphasis added.)

Absent additional technological development, receiving email in real time would require the embodiment described in NTP's specification involving an RF receiver which is detachable from the destination processor, which has its own memory, and which receives email even when the destination processor is not turned on or connected to the RF receiver. Such an RF receiver ensures that emails are received when they are sent, even in the absence of the destination processor which is connected and turned on.

But the claimed invention has no requirement for a detachable RF receiver including its own memory.

In any event, it is uncertain why \$405 million of RIM's infringing sales constitutes commercial success. It is well established that absolute sale numbers without market share data does not establish commercial success. See, e.g., In re Huang, 100 F.3d at 140. NTP's appeal brief does not discuss and present market share information. While \$405 million is a large sum, and may well represent commercial success of something, on the basis of its appeal brief NTP simply has not proven its case with respect to the claims on appeal. What about the extent of all non-infringing sales in the industry? We decline to determine that NTP has shown commercial success simply because a U.S. District Court has found on the record before it during the civil action between NTP and RIM that there was commercial success. Note also that while 328 claims are on appeal in this proceeding, including ten independent claims, only one claim (claim 8) from the NTP '670 patent was found by the U.S. District Court to have been infringed by RIM. NTP has failed to demonstrate why, even assuming that there was commercial success with regard to the invention of a single claim, that translates to commercial success of the claimed invention of all 328 claims before us.

On page 128-129 of its appeal brief, NTP incorrectly states that RIM was found to have willfully infringed six claims of the '670 patent. On page 126 of its brief, NTP states that RIM was found to have infringed "numerous claims" of NTP's Patent 5,436,960. There were three. But what that has to do with commercial success of the claimed invention in NTP '670 patent

involved in this appeal escapes us. The fact is that only a single claim, claim 8, of the '670 patent was found to have been infringed by RIM.

For all of the foregoing reasons, NTP has failed to establish the necessary "nexus" between the evidence of alleged commercial success and the invention claimed. The evidence of commercial success is not commensurate in scope with NTP's claimed invention.

3. Alleged Inability to Design Around

On pages 128-129 of its appeal brief, NTP asserts that the inability of RIM to design around NTP's patent claim constitutes strong evidence of nonobviousness. Specifically, in a section titled "Inability to Design Around," NTP states (Brief 128-129):

Here, over three years after the trial in which RIM was found to willfully infringe six claims of the '670 Patent and with millions of dollars of damages at stake, RIM recently announced that RIM had developed a design around, yet remarkably indicated that it prefers not to implement it. *See* White Supp. Dec. at ¶¶ 8-9. With very significant money hanging in the balance, that RIM waited over three years to allegedly develop a design-around that it never implemented is strong evidence of nonobviousness.

We have already discussed above that only a single claim of the '670 patent was found by the U.S. District Court for the Eastern District of Virginia to have been infringed by RIM.

NTP cites no authority which indicates that failure to design around a patented invention after the patent issues, when not coupled with failed attempts to design the claimed invention before the patentee's invention, constitutes objective evidence of nonobviousness. The case authority cited by NTP, *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272,

1285 (Fed. Cir. 2000), clearly indicates that first and foremost it is the infringer's repeated failure to design the claimed invention which supports a conclusion of nonobviousness. An infringer's failure to design around the claimed invention after the patentee's patent issues can strengthen the indication of nonobviousness if the infringer had tried but failed to design the claimed invention prior to the patenting by the patentee. *Id*.

Here, as we have already discussed, NTP failed to direct our attention to evidence that skilled workers in the art, prior to NTP's invention, made repeated efforts to send a wireless email message to an RF receiver associated with a destination processor but were met with consistent failure. In the absence of previous failed attempts to design the claimed invention, subsequent inability to design around the claimed invention after the patent issues is not indicative of nonobviousness. It may just reflect the breadth of NTP's claims. In that connection, note that if any and all attempts to solve a problem lead to something within the scope of the claimed invention, that would indicate obviousness, not nonobviousness of the claimed invention.

In any event, NTP's argument that RIM failed to design around NTP's claimed invention is not supported by the evidence cited by NTP. The supplemental declaration of William White, cited by NTP, states in paragraph 8 that RIM recently informed investors that it has been working on a design around option but that it does not want to implement such an option. The testimony is hearsay. While perhaps "admissible" in the context of this ex parte case, we nevertheless decline to credit it. It merely reflects what William White says about what RIM had told RIM's investors. Even if we were to credit it, it does not support what NTP asserts, because

simply choosing not to implement a design around is not the same as having tried but failed to design around NTP's claimed invention. The decision not to implement a design around may be due to a myriad of reasons. There is no basis to equate that decision to an inability to design around the claimed invention.

Paragraph 9 of the supplemental declaration of William White is reproduced below:

Further, on January 17, 2006, RIM informed the United States District Court for the Eastern District of Columbia [sic -Virginia] that RIM's "workaround" would be difficult and complicated. *See* Defendant Research in Motion, LTD.'s Non-Confidential Consolidated Memorandum on Remand Issues, January 17, 2006, attached hereto as Exhibit A, pages 27 and 46-48.

We have read the cited portions of RIM's memorandum to the Eastern District of Virginia and find that the "difficulty" referred to in connection with a "workaround" does not have to do with technical issues on developing something that does not infringe, but has to do with the logistics and inconvenience with regard to carrying out a software upgrade for existing customers. The cited portions of the memorandum do not indicate that RIM failed to develop a technical "workaround" but only that for various business reasons implementing the "workaround" would not be desirable.

We also do not credit the following statement in paragraph 5 of the declaration of William White:

[I]n response to a motion for injunctive relief, RIM's CEO, Mike Lazaridis, filed a declaration stating that RIM had been

unable to design around the Campana patents. See Appendix B, Declaration of Mike Lazaridis (Redacted), \P 7.

The cited portion of the declaration of Mike Lazaridis is reproduced below and clearly does not reflect a statement that RIM had attempted to design around the patents and failed:

RIM continues the process of attempting to design around the NTP patents. There is no guarantee that RIM's engineers will find a design-around solution, and whether or not successful, the efforts will take substantial resources, time and money. Even if a design around solution is found, there would be an inevitable interruption in service to implement such solution, causing RIM to lose a significant portion of the Company's competitive advantage, customers, revenues and gross profit.

Finally, it is noted that NTP's own argument indicates that RIM had developed a design around NTP's claimed invention but simply chose not to implement the alternative design. The wording used by NTP in its brief to characterize the alleged circumstance is that "RIM had developed a design around, yet remarkably indicated that it prefers not to implement it." (Brief 129:2-3). It suffices here to note only that choosing not to implement a design which had been developed is not the same as having failed to develop the design. NTP's argument is misplaced.

4. Alleged Copying

Citing paragraph 22 of the White declaration, NTP argues in its appeal brief that "AT&T provided the [NTP] patented technology to its strategically important customer Skytel, thus allowing Skytel to copy the technology developed by the '670 Patents' inventors." (Brief 127:19-21). Paragraph 22 of the White declaration is reproduced below:

> 22. With regard to copying, NTP presented unchallenged evidence during its trial against RIM that AT&T provided the patented technology to its strategically important customer Skytel, thus allowing Skytel to copy the technology developed by the Campana patent inventors.

The above-quoted testimony does not cite to any underlying evidence which we can review. It represents a bare statement of William C. White, the President of NTP, whose testimony we do not give much weight given his mischaracterization of the declaration of Mike Lazaridis discussed above and his manifest interest in the involved patent. William C. White also does not specifically discuss the evidence. Even assuming that pertinent evidence was presented in the infringement trial, NTP could have presented, but elected not to present, the evidence to the Examiner for consideration and discuss how the evidence supports its assertion of copying by others. NTP has not shown what product was produced by Skytel and to what extent it duplicated NTP's demonstrated device. Copying by Skytel, as alleged by NTP, has not been established.

Copying is also one of those secondary consideration factors which can cut both ways. In *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1028 (Fed. Cir. 1985), the Court of Appeals for the Federal Circuit stated:

Even widespread copying could weigh toward opposite conclusions, depending on the attitudes existing toward patent property and the accepted practices in the industry in question. It is simplistic to assert that copying per se should bolster the validity of a patent.

Even if Skytel "copied" NTP's demonstrated system, NTP has not shown that Skytel generally respected NTP's patent rights or that Skytel has taken a license of NTP's '670 patent.

Infringement by RIM also does not establish copying by RIM. As is stated by the Court of Appeals for the Federal Circuit in *Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004):

Not every competing product that arguably falls [sic] within the scope of a patent is evidence of copying. Otherwise every infringement suit would automatically confirm the nonobviousness of the patent. Rather, copying requires the replication of a specific product.

Moreover, if the alleged copier duplicated NTP's disclosed embodiment using a detachable RF receiver having its own memory to obtain the advantages described in NTP's specification over prior art, then the evidence of copying is not commensurate in scope with NTP's claims. As is already discussed above, none of NTP's claims on appeal requires an RF receiver that is detachable from the destination processor and that includes its own memory for storing the received email messages.

5. Licensing Activity

NTP asserts that it has licensed the '670 patent to Nokia Inc., a major manufacturer of mobile telephones and related hardware and software products, Good Technology Inc., and Visto Corporation. However, the mere existence of several licensees, without more specific information about the circumstances surrounding the licensing, is not a good indicator of nonobviousness. In *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898,

907-908 (Fed. Cir. 1985), the Court of Appeals for the Federal Circuit stated:

Such [licensing] programs are not infallible guides to patentability. They sometimes succeed because they are mutually beneficial to the licensed group or because of business judgments that it is cheaper to take licenses than to defend infringement suits, or for other reasons unrelated to the unobviousness of the licensed subject matter.

The record contains no testimony from any licensee with regard to why the licensee took a license from NTP. It is unknown how much of the decision to take a license stems from a business cost-benefit analysis with regard to defending an infringement suit or from another business reason, rather than from acknowledged merits of NTP's invention. NTP also does not disclose how many entities refused to take a license or why some entities, if any, refused to take a license. Three licensees may not represent a very successful licensing program if the field of potential application of NTP's technology includes a large number of potential licensees. It is also uncertain whether the terms of the alleged licenses are made unusually favorable to the licensee just so that NTP could claim it had licensed its invention to some.

To the extent that NTP asserts commercial success based on the existence of the licenses, it has not established the market picture insofar as how much of the commercial market are represented by products which are sold under the licenses and how much are not. The mere number of licensees does not establish substantial commercial success.

Furthermore, NTP has not described the specific structure and operation of the devices made or marketed by its licensees such that we can

evaluate whether and to what extent the devices embody what NTP describes as the reason why its invention is advantageous over the prior art, *i.e.*, use of a detachable RF receiver which has its own memory. We also cannot assume that the licensees took the licenses for reasons substantively related to each and every one of NTP's hundreds of claims. In our view, it is significant that NTP filed no declaration from a representative of any one of the three licensees attesting to and praising the merits of NTP's invention or which discusses the circumstances surrounding the taking of a license from NTP.

Because it is NTP's burden to establish nexus between the evidence of nonobviousness and the merits of its claimed invention, the murky picture of the commercial business environment as noted above leads us to conclude that NTP has failed to credibly establish the necessary nexus between the licensing activity and the merits of its claimed invention.

Note also that none of NTP's claims on appeal requires an RF receiver which is detachable from the destination processor, which includes its own memory to store email messages, and which can operate to receive email in the absence of the destination processor. Given that those are the features NTP's specification describes as providing important advantages over the prior art, the licensing activity, to the extent that they allow the licensees to make and use NTP's disclosed invention, is not commensurate in scope with what is claimed.

NTP has informed the Board that RIM, who was found to have infringed the NTP '670 patent and who was unsuccessful in asserting invalidity of any claim of the NTP '670 patent in civil litigation, has taken a

license under the NTP '670 patent. That fact is not of substantial help to NTP, as the litigation and charge of invalidity reflect RIM's firm position that certain claims of the patent are invalid. Licensing activity after a successful defense against an assertion of invalidity does not have the same character as licenses arranged without a challenge of validity. Moreover, RIM may have agreed to take a license during a phase of the civil action involving a question of whether an injunction should be issued by the Eastern District of Virginia. In other words, the taking of any license may not have been an issue when obviousness was considered. Rather, agreeing to take a license would be one factor a court could consider particularly if the patentee itself is not commercially marketing an infringing device.

Also, NTP has not described the structure and operation of RIM devices which have been sold under the license. If they implement NTP's disclosed embodiment to achieve the disclosed advantages, then the licensing activity is not necessarily commensurate in scope with what is claimed as we have already discussed above in connection with RIM's product which was found to have infringed the NTP '670 patent. The lack of information also precludes us from meaningfully evaluating whether other advances in the art are primarily responsible for the sales and for RIM's interest in selling a device within the scope of NTP's claims.

Conclusion

For reasons discussed above, the evidence of nonobviousness is not commensurate in scope with what NTP has claimed, and NTP has failed to establish the necessary nexus between the evidence of nonobviousness and the claimed invention. The evidence of nonobviousness as discussed above

is weak. In making our decision on the obviousness of NTP's claims over prior art, the entirety of the evidence submitted, including the evidence based on the applied prior art and the evidence of nonobviousness based on secondary consideration factors, has been considered as a whole.

H. Telenor '89 as an authentic document and a printed publication

1. Introduction

Included as part of the prior art relied upon by the Examiner, are eight documents which form part of a library collection at the University Library of the Norwegian University of Science and Technology (Library). The documents are Reference C1 through Reference C8:

Reference C1—TeleNor '86: Terje Henriksen et al.,
 Mobile Data Network System Description, Norwegian
 Telecommunications Administration Research Department Report
 No. 30/86, April 1986, Kjeller, Norway, Deposited at the Norges
 Teknisknaturvitenskapelige Universitet (hereinafter NTNU—The
 Technical University Library of Norway) Library in Trondheim,
 Norway, May 23, 1986.

Received in the Library: 22 May 1986.

Catalogued: 24 June 1986.

 Reference C2—TeleNor '89, Vol. 1: Stig Kaspersen et al., Mobile Data Network Description, Volume 1: Network Architecture, Addressing and Routing, Teledirektoratets forskningsavdeling, TF-Report 3/89, 6 February 1989.

Received in the Library: 23 February 1989

Catalogued:	12 October 1989
ISBN:	82-423-003-8

3. Reference C3—TeleNor '89, Vol. 2: Stig Kaspersen et al., Mobile Data Network Description, Volume 2: Services and Service Elements, Teledirektoratets forskningsavdeling, TF-Report 4/89,

6 February 1989.

Received in the Library:22 February 1989Catalogued:12 October 1989ISBN:82-423-0004-6

4. Reference C4—TeleNor '89, Vol. 3: Geir Ivar Thorud et

al., Mobile Data Network Description, Volume 3: Protocols and Protocol Hierarchy within the MDN, Teledirektoratets forskningsavdeling, TF-Report 5/89, 6 February 1989.

Received in the Library:24 April 1989Catalogued:12 October 1989ISBN:82-423-0005-4

5. Reference C5—TeleNor '89, Vol. 4: Geir Ivar Thorud et al., Mobile Data Network Description, Volume 4: Specification of DTL and DTP within the MDN, Teledirektoratets forskningsavdeling, TF-Report 6/89, 6 February 1989.

Received in the Library:22 February 1989Catalogued:12 October 1989ISBN:82-423-0006-2

6. Reference C6—TeleNor '89, Vol. 6:⁵ Stig Kaspersen et al.,
Mobile Data Network Description, Volume 6: Requirements to the
Base Stations, Teledirektoratets forskningsavdeling, TF-Report 7/89,
6 February 1989.

Received in the Library:	22 February 1989
Catalogued:	12 October 1989
ISBN:	82-423-0007-0

7. Reference C7—TeleNor '89, Vol. 7: Stig Kaspersen

et al., Mobile Data Network Description, Volume 7: Requirements to the Mobile Stations, Teledirektoratets forskningsavdeling, TF-Report 9/89,⁶ 6 February 1989.

Received in the Library:	24 April 1989
Catalogued:	12 October 1989
ISBN:	82-423-0009-7

8. Reference C8—TeleNor '89, Vol. 8: Geir Ivar Thorud et

al., Mobile Data Network Description, Volume 8: Specification of the

MDN—MHS Interworking, Teledirektoratets forskningsavdeling,

TF-Report 8/89, 6 February 1989.

Received in the Library:24 April 1989Catalogued:12 October 1989

⁵ There is no Volume 5.

⁶ In order to avoid possible confusion, we advise the reader to be aware that Reference C7 relates to FT-Report 9/89 Volume 7 and Reference C8 relates to FT-Report 8/89 Volume 8. While the Volume numbers are in order, the FT-Report numbers 9/89 and 8/89 are out of order. On the merits of the issues before us, we attribute no significance to the order in which the documents are numbered.

ISBN: 82-423-0008-9

Copies of the eight documents were provided to the USPTO as part of a third-party request for ex parte reexamination in Reexamination Control 90/007,723 for reexamination of NTP's '670 patent, and also in related Reexamination Control 90/007,735 for reexamination of NTP's Patent 5,819,172.

The receipt dates, catalogue dates and ISBN data were obtained from a Torbjorn Digernes letter to Kevin Anderson, dated 16 January 2006, page 3 of 5 (hereinafter "Digernes letter"). *See also* Exhibit C of the thirdparty ex parte reexamination request in Reexamination Control 90/007,735.

NTP maintains that the eight documents are not prior art. *First*, according to NTP, the authenticity of the documents—as of a date one year prior to NTP's filing date—is questionable. *Second*, further according to NTP, the documents were not catalogued by and in the University Library of the Norwegian University of Science and Technology in such manner as to be reasonably accessible to the public in connection with NTP's field of invention.

2. Photos

We have taken photographs of portions of the eight documents which are said to have been examined by NTP witness David Richard Browne. The photos were taken on 30 and 31 October 2008. A listing of the photographs appears as Appendix 1 to this opinion. The photographs are found on a CD which accompanies this Memorandum Opinion and are in JPEG format. Reference to a photograph is by the last 3 numbers, *e.g.*, (004) means photograph:

2008-4605.30October2008.004.jpg

listed in Appendix 1 as 004.

Appendix 1 lists the photos (1) in photograph number order and (2) by Reference C number.

3. Findings of Fact

The Library

The Norwegian University of Science and Technology (the Library) is a state-owned university and a public body. (Digernes letter, page 1 of 5).

The Library is located at Trondheim, Norway—which is about 375 kilometers almost directly north of Oslo.

The Library has no interest in any patent dispute involving NTP and RIM. *Id*.

According to the Library, both NTP (appellant) and RIM (third-party reexamination requester) sought the assistance of the Library in seeking certain information. *Id*.

As would be expected of a public library, it is the Library policy to provide equal treatment to any interested party seeking information from the Library. *Id*.

The Library has provided the following information (Digernes letter, pages 3-4 of 5) [matter in brackets added]:

As our routine was for receiving reports at the time [1986 and 1989], the reports were stamped and inserted on our cardex (the date was written down on a cardex card for when we received each report in the series) right after they were received in the library or some days after, dependent of the backlog, but

not more than 2 weeks after, according to our Serials Department.

After cardex the reports were indexed and classified. For classification of our technical literature we use the UDC system.

At the time we received these reports [1986 and 1989], the name of the Main Library for Technology under [the] NTNU Library were [sic—was the] Technical University Library of Norway, and belonged to Norges tekniske høgskole (NTH). It merged with several others to form the NTNU Library from 1990. UDC was used at the whole Technical University Library of Norway.

The signature of the whole series is "621.39(06) tq R18" and that is where all the reports in the series are placed on the shelf. 621.39 is "telecommunications" and a rather general number, because it is used for the whole series. In addition to that each report was classified and indexed with more special numbers and subject headings, like f.eks. Mobile Data network description vol. 8, that has UDC 681.324 and 621.391:006 and the subject headings "Datamaskinnett" (computer networks) and "kommunikasjonsprotokoller" (communication protocols). That means the reports could be found by searching on these UDC numbers and subject headings in BIBSYS, or looked up on these numbers and words in our microfiche edition of BIBSYS. "Anal" after the signature, means that each number in

the series was "analyzed" i.e. each report is classified and indexed and is catalogued in the database with author, title etc. That is done to make each report in the series easier to find in the catalogue, because it then can be searched in many several ways: On all the authors (when there are not more than 3), title, classification numbers, subject headings, ISBN, title of the report etc. (To see all the search elements in the record, search "BIBSYS websearach"

http://wgate.bibsys.no/search/gen?lang=E, then click "Export using format MARC").

After indexing the reports were sent to cataloguing. We catalogue all our literature in our online catalogue in BIBSYS. The BIBSYS catalogue is the common database for the Norwegian university libraries and colleges and other research libraries in Norway, about 100 all together. For the cataloguing we use the "Anglo American Cataloguing Rules" (AACR2) in Norwegian translation by I. C. Spangen, which also were the rules used back in 1986. The machine readable format we use for cataloguing is MARC (BIBSYSMARC). BIBSYSMARC is built on the Norwegian NORMARC and Library of Congress' LCMARC.

After cataloguing, the catalogue records were proofread by another person at the Catalogue Department, before the reports were sent down and placed on the shelf in the periodicals collection.

From the moment the reports were catalogued in BIBSYS, they were searchable and public[ly] available. They could be borrowed by anybody who came to the library and at that time we had inter-library loan connections with all parts of the world. Our catalogue could be searched online by the public all since we started to catalogue in BIBSYS in 1980. And a microfiche copy of the catalogue, both alphabetical and systematical, came usually every 3 months. By the way no microfiche edition was produced between May 1989 and June 1990, because the BIBSYS system came in a new version (BIBSYS II) at that time. The microfiche were distributed to several libraries, and the search elements in the microfiche were the same as by searching online. The Technical University Library of Norway also delivered their catalogue records to "Norsk samkatalog"-the Norwegian Union Catalogue, which also at that time came in a microfiche edition that was distributed to a lot of libraries. (NUC for monographs: http://www.nb.no/baser/sambok/english.html) NUC also exists for periodicals etc.). The reports can therefore also be searched in NUC. It is not checked [sic—We did not check to see] if the reports could be searched in any other reference databases. How BIBSYS was searched outside Norway before the World Wide Web is hard for us to say anything about.

Based on the Digernes letter, we find that the following steps generally take place in the receipt through shelving of a document:

- 1. Receipt;
- 2. Date stamp receipt;
- 3. Add document information to cardex;
- 4. Index and classify;
- 5. Catalogue (search can be conducted at this point);
- 6. Proofread;
- 7. Shelve.

Shelving in this case occurred "prior to the relevant priority date of the . . . patents" involved in these reexamination proceedings. (Supplemental Declaration of V. David Rhyne, ¶ 48, Assumption c; Brief 50). The shelving date is not an issue on appeal.

As noted earlier, the Library states that it has a policy of helping all who seek its assistance.

Representatives of RIM [identified as "Mr. Sylthe" (believed to be Olav Sylthe) and "Mr. Novak" (believed to be Gregory V. Novak)] are said to have visited the Library. Two weeks later, Keith Anderson visited the Library seeking what would appear to be similar information as the RIM representatives. It may be that Anderson did not tell the Library that he represented NTP. That detail was nevertheless independently discovered by the Library through articles in the American press. (Digernes letter, page 1 (2d and 3d full ¶) of 5).

Pasquine Declaration

Through an information disclosure statement, NTP provided a copy of a Declaration of Mark Vincent Pasquine, originally submitted to the USPTO

by the third-party reexamination requester in related Reexamination Control 90/000,020 (inter parte reexamination) on January 10, 2006.

The declaration is said to have been executed at Bergen, Norway on 3 January 2006.

On 17 June 2005, Pasquine was told by the Library that the eight documents relied upon by the Examiner were available for loan (*i.e.*, could be borrowed from the Library). (Pasquine Declaration, ¶ 3).

Pasquine does not say what prompted him to ask the Library if the documents "were available for loan."

The eight documents were checked out of the Library on 17 June 2005. (Pasquine Declaration, \P 3).

The eight documents were "shipped" to the United States on 17 June 2005 and according to Federal Express records were delivered on 23 June 2006. (Pasquine Declaration, \P 4).

According to a document which is said to be a Federal Express record, the delivery occurred on 23 June 2005 at 10:22 a.m. and delivery was signed for by an individual identified by Federal Express as being L. Johnson. (*See* Exhibit A to the Pasquine Declaration).

The position occupied by L. Johnson is not stated in the Pasquine Declaration.

A third-party reexamination request in Reexamination Control 90/007,735 was filed on 28 September 2005.

A copy of Reference C7—TeleNor '89, Vol. 6 submitted on 28 September 2005 with the third-party request for reexamination bears a stamp as follows

RECEIVED

JUNE 23, 2005

NOVAK DRUCE—DC

Novak Druce Deluca & Quigg, a law firm located in the District of Columbia, represents the third-party requester.

A possible inference is that Pasquine obtained the eight documents and sent them via Federal Express to Novak Druce for its use in preparing a third-party reexamination request.

Pasquine says that he was able to confirm that the eight documents were received back at the Library no later than 12 August 2005. (Pasquine Declaration, \P 5).

A Federal Express tracking document is consistent with Pasquine's statement. (*See* Exhibit B of the Pasquine Declaration). Exhibit B facially reveals that a package was shipped from Washington, D.C., on 9 August 2005 and arrived via (1) Indianapolis, Indiana, (2) Paris, France and (3) Gardermoen, Norway ultimately arriving in Trondheim, Norway on 12 August 2005 at 10:46 a.m. Exhibit B facially shows that a J. Lundquist "signed" for delivery of the Federal Express package.

According to Pasquine, he talked with a representative of NTNU on 16 August 2005. Further according to Pasquine, the representative was able to confirm that the documents were back at the Library. (Pasquine Declaration, ¶6).

On 3 January 2006, Pasquine spoke with Birgit Storleer at the Library and "she [is said to have] confirmed" that the eight documents were "currently available in the NTNU [L]ibrary." (Pasquine Declaration, ¶8).

Sorsdahl Declaration

Through an information disclosure statement, NTP provided a copy of a Declaration of Petter Sorsdahl, originally submitted to the USPTO by the third party requester in related Reexamination Control 95/000,020 (inter parte reexamination) on January 10, 2006.

The declaration is said to have been executed at Gothenberg, Sweden on 5 January 2006.

Sorsdahl has been a Swedish patent attorney since 1999. (Sorsdahl Declaration, \P 2).

From 1984 through 1995, Sorsdahl was a patent examiner in the Swedish Patent Office. (Sorsdahl Declaration, \P 3).

During his tenure as a patent examiner, Sorsdahl performed "hundreds" of patent searches. (Sorsdahl Declaration, ¶ 4).

Although he does not say why, there came a time when Sorsdahl reviewed the specification, including claims, of NTP U.S. Patent 5,436,960 and NTP U.S. Patent 6,317,592. (Sorsdahl Declaration, \P 6).

Sorsdahl regards the general subject matter of the two patents in the technical field of mobile data communications and electronic telecommunications and messaging, including "mobile data networks" and "mobile telephony." (Sorsdahl Declaration, \P 7).

Sorsdahl is of the opinion that it would be an exercise of reasonable diligence to search various Nordie-European and Scandinavian universities and libraries for printed publications relating to the involved technical field. (Sorsdahl Declaration, \P 7).

A search of the various card catalogs and indexes of the Norwegian University of Science and Technology (NTNU) would have been appropriate. Also appropriate would have been a search in a multiple catalogue search facility at the University of Karlsrube in Germany. (Sorsdahl Declaration, ¶ 8).

Based on his experience, Sorsdahl believes that a search in 1989 at NTNU would have located the eight documents upon which the Examiner relies. (Sorsdahl Declaration, \P 9).

Sorsdahl's opinion is based on a search he conduced of NTNU library records both through the BIBSYS system and through an interview of library staff at NTNU. The search and interview were conducted on 26 October 2005. (Sorsdahl Declaration, \P 10).

Based on his discussion with NTNU staff, Sorsdahl was able to confirm that the eight documents (1) were still in the Library's catalogue and index collections and (2) could be checked out of the Library at that time. (Sorsdahl Declaration, ¶ 11).

Declaration of Kevin P. Anderson

We now shift from third-party requester activities to those of the patent owner.

Anderson is an attorney representing NTP. (Anderson Declaration, $\P 2$).

Although he does not say why, there came a time when Anderson was "apprised" of what he refers to as "alleged documents" "supposedly" located in the NTNU Library. (Anderson Declaration, \P 2).

On or about 1 July 2005, Anderson initiated an investigation into the documents. (Anderson Declaration, \P 2).

He made an inquiry (possibly by phone—Anderson does not say how the inquiry was made) about the "authenticity of these alleged documents." (Anderson Declaration, \P 3).

Whatever the nature of the Anderson inquiry, he says he found out that the documents were checked out. (Anderson Declaration, \P 3).

The documents, of course, are the eight documents upon which the Examiner relies.

Apparently, Anderson attempted to determine who had checked the documents out of the Library. But, to his disappointment, he promptly learned that in Norway one cannot obtain information on who checks books out of a library. (Anderson Declaration, \P 3). We take official notice of the fact that the same policy exists in many libraries in the United States.

On 18 August 2005, Anderson traveled to Trondheim, Norway, to visit the NTNU Library.

Anderson was again advised that the documents were "checked out."

Anderson was told that a typical check out time is three months. The good news was that he could put his name on a waiting list. The bad news was that the Library had no means to force someone to return checked out material. (Anderson Declaration, \P 4).

Anderson states (Anderson Declaration, \P 5):

During my visit to the NTNU [L]ibrary, I was also advised that the [L]ibrary has no mechanism for verifying that a document, such as the alleged Telnor documents [*i.e.*, the eight

> documents relied upon by the Examiner], was returned to the library with [sic—in] the same condition and [with the same] contents as existed for the document when it was checked out. I was also advised that the [L]ibrary cannot verify whether the documents [which have been checked out and returned] have the same content as when originally deposited.

We decline to give any weight to the "testimony" in \P 5 of the Anderson declaration. Unlike much of the other hearsay "testimony" before us, there is no documentary corroboration of the hearsay in \P 5 of the Anderson declaration. It is testimony of a witness with an interest—the witness represents the interests of NTP. Moreover, we do not find the testimony credible. In our view, at best it represents Anderson's twist on a conversation he said he had with an individual employed by the Library.

Declaration of David L. Gunn

David L. Gunn is the Head Librarian at Hunton & Williams LLP, a law firm representing NTP. (Gunn Declaration, \P 1).

On 3 February 2006, Gunn called Birgit Storleer at NTNU to see if he (the firm) could borrow the eight documents. Presumably, Storleer is the same individual mentioned in the Pasquine declaration. Storleer is said to have "readily assented" to Gunn's request. (Gunn Declaration, \P 2).

Gunn received the documents "in good order" via DHL on 7 February 2006. (Gunn Declaration, \P 3).

On 7 February 2006, Gunn gave the documents to Tom Kaufman and, as of 24 April 2006, has not again seen the documents. (Gunn Declaration, $\P 4$).

Gunn tells us that while the documents were in his possession, he did not "alter" or "manipulate" the documents. (Gunn Declaration, \P 5).

The term "manipulate" is susceptible to different meanings. A first meaning would include turning pages—a permissible manipulation. A second meaning would include changing the contents of the pages in some fashion—an impermissible manipulation. We believe Gunn (as well as other NTP witnesses) in using the term "manipulate" refers to the second meaning.

Declaration of Thomas F. Kaufman

Thomas F. Kaufman is an attorney in the law firm of Hunton & Williams LLP. (Kaufman Declaration, ¶ 1).

On 7 February 2006, Kaufman received the eight documents from Gunn. (Kaufman Declaration, \P 2).

Kaufman examined the documents "to get a sense of what they contained," but he "did not alter or manipulate the . . . documents while they were in [his] possession." (Kaufman Declaration, \P 3).

On 22 February 2006, Kaufman caused the documents to be shipped via DHL to James Brown, "a solicitor in our London office." (Kaufman Declaration, \P 4).

Declaration of James Brown

To alert the reader, we note that NTP relies on both (1) a Brown Declaration and (2) a Browne Declaration.

James Brown is an English "solicitor" in the London Office of Hunton & Williams LLP. (Brown Declaration, ¶ 1).

Brown received the documents from Kaufman on 27 February 2006. (Brown Declaration, \P 2). What Brown means is that he received via DHL the eight documents which Kaufman says he sent to London via DHL.

On 2 March 2006, Brown instructed paralegal Peter Sadler to handdeliver the documents to David Richard Browne. (Brown Declaration, \P 3).

Brown did not alter the documents while they were in his possession. (Brown Declaration, \P 4).

Declaration of Peter Sadler

Peter Sadler is a paralegal in the London Office of Hunton & Williams LLP. (Sadler Declaration, ¶ 1).

On 2 March 2006, he received the eight documents from James Brown. (Sadler Declaration, \P 2).

Sadler then hand delivered the eight documents to David Richard Browne. (Sadler Declaration, \P 3).

Sadler did not alter or manipulate the documents while they were in his possession. (Sadler Declaration, $\P 4$).

Declaration of David Richard Browne

Browne is a citizen of the United Kingdom working in London. (Browne Declaration, \P 1).

Browne is a forensic document investigator. Browne Declaration, ¶¶ 3-6 and Exhibit 1 attached to the declaration.

Browne has performed forensic investigation in both criminal and civil matters. (Browne Declaration, Exhibit 1, page 1, \P 4).

Browne "took possession" of the eight documents on 2 March 2006. (Browne Declaration, $\P 8$).⁷

He had been asked by David Geneson of Hunton & Williams LLP to "examine" the documents. (Browne Declaration, \P 7).

What did Browne learn from his examination?

1. Reference C1 is said to have been fastened with staples. Browne Declaration, ¶ 14. According to Browne, staple holes in the document were "commensurate [sic—consistent] with three staples having been present and [at one point thereafter] having been removed." *Id.* Further examination has lead Browne to conclude that it is "possible" that Reference C1 was taken apart and then put back together, but Browne states [one might say "speculates"] that the papers may have been put back together in an order differing from the original order. (*See, e.g.*, Browne Declaration, ¶ 22). Browne says that it is not possible to state when the documents were dismantled [unstapled] and reassembled. (Browne Declaration, ¶ 24).

2. Using UV light analysis, Browne concludes that a number of pages within each document, which he calls "books," "were [made on photocopiers] from different batches of paper." (Browne Declaration, \P 27).

3. Finding what Browne calls a disparity between some "headers" and the rest of the text on the page of Reference C2, Browne indicates "that the

⁷ The Examiner calls into question the relevance of the Browne examination and whether it should be considered at all. (Answer 113 n.20). We note that the Examiner sometimes refers to Browne as "Brown." We have not found in NTP's Reply Brief any response to the Examiner's point. The Browne examination is questionable for the reasons given by the Examiner. However, assuming *arguendo* the Examiner is not correct, we proceed with fact-finding and analysis assuming the examination occurred with a proper set of documents.

original text on the page has been replaced in each case." (Browne Declaration, \P 32).

4. Browne says that the header line of Reference C3 was produced at a different time than the material on the rest of the page. He also notes a shift in how pages are numbered. After page 107, the page numbers move from the outside of each page to the inside. (Browne Declaration, ¶ 33). More on the page number "shift" appears later in this opinion.

5. According to Browne, References C3, C4 and C5 were all produced by a photocopier on the same day. The three references do not have the "same trash mark." (Browne Declaration, ¶ 35). Browne cannot explain why the three documents, all made via a photocopier, have different trash marks. (Browne Declaration, ¶ 36).

6. Reference C5 has pages which appear to have been made on different paper. (Browne Declaration, \P 37).

7. Reference C6 has pages which are reproduced on different paper. (Browne Declaration, \P 38).

8. The same is said to be true for Reference C8. Not only does Browne conclude that it was made on different paper, but "probably at different times." (Browne Declaration, \P 39).

9. Browne finds it difficult to explain why the first half of Reference C8 is on paper that is the same as used for the next book (Reference C7) while the second half of Reference C8 uses the same paper as five other books. (Browne Declaration, \P 41).

10. Browne next addresses date stamps on the front page of each document. Since pages can be removed and replaced, Browne reasons that

one cannot "guarantee" the accuracy of the dates stamped on the front pages. (Browne Declaration, \P 44).

11. Browne states that "[i]t is clear that much of the text has been added to existing pages." (Browne Declaration, ¶ 45). Browne does not identify to our satisfaction specifically what "text" is said to have been added. The apparent basis for the statement is that the "re-use of existing headers to introduce the current text." *Id*.

12. "Although many of the books purport to have been produced at the same time, there is [says Browne] considerable evidence that this is not the case." (Browne Declaration, \P 47). Presumably the basis for this statement is the result of the overall findings of the examination, all as discussed above.

13. Browne concludes his declaration as follows (Browne Declaration, ¶¶ 49-50):

49. Without knowledge of other documents in the University [L]ibrary and or the Telecommunications Research Institute and the control procedure in use, or the copiers in use, it is not possible to give a definite opinion as to the dates of any alterations.

50. However, my findings are significant and do cast doubt as to when these documents were created, when changes were made and what text was actually on the pages when they were first filed [in the Library].

Supplemental Declaration of V. Thomas Rhyne

NTP takes the position that one skilled in the art could not have found the eight documents because they are said to have been improperly indexed, *i.e.*, the "right" technical terms do not appear on the catalogue index. In support of its position, NTP relies on the declaration testimony of V. Thomas Rhyne. The relevant testimony appears in ¶¶ 44-50 on pages 16-19 of the Supplemental Declaration of V. Thomas Rhyne.

According to Rhyne, one skilled in the art would not have located the eight documents through a reasonable search. (Rhyne Supplemental Declaration, \P 47).

When asked by NTP to give his opinion, Rhyne was told to base his opinion on nine (9) assumptions which Rhyne identifies in subparagraphs a. through i. of \P 45 of the Supplemental Declaration. We paraphrase the assumptions as follows—using words in place of those used by Rhyne for which there is an antecedent in this opinion.

Assumption a: That the eight documents consist of a first document dated April 1986 ("the 1986 Document [Reference C1]) and a second group of documents dated in 1989 (the "1989 Documents" [References C2 through C8]) (collectively "the Norwegian Documents).

<u>Assumption b</u>: That the documents were deposited at the Norwegian University of Science and Technology ("NTNU") in Trondheim, Norway as RIM has alleged.

<u>Assumption c</u>: That the documents were entered into the BIBSYS system, a computer system used by NTNU and other

Norwegian libraries prior to the relevant priority date of the Campana patents involved in these reexamination proceedings.

<u>Assumption d</u>: That Reference C1 is entitled "Mobile Data Network System Description," Norwegian Telecommunications Administration Research Department, Report No. 30/86, and that the cover page, indicates a date of April 1986 and lists the following authors: Terje Henriksen, Stig Kaspersen, Geir Thorud and Finn Trosby.

<u>Assumption e</u>: That currently, i.e., 25 January 2006, the date on which Rhyne appears to have signed the Supplemental Declaration, the BIBSYS entry for Reference C1 lists only the first author, the title, and the following subject matter in Norwegian: datamaskinnett, dataoverforing, and mobiltelefon where these Norwegian terms are translated, respectively, as: computer network, data transmission, and mobile telephone.

<u>Assumption f</u>: That the BIBSYS system currently allows a user to enter keywords to electronically search the BIBSYS records, including the use of author, title, and subject matter categories.

<u>Assumption g</u>: That References C2 through C8 consist of an eight-volume set [with Volume 5 appearing to be unavailable], each volume entitled "TF Teledirektoratets forskningsavdeling, Mobile Data Network Description," and that the cover page of each volume is date stamped either February 22, 1989 or April 24, 1989.

<u>Assumption h</u>: That the BIBSYS entry for each of References C2 through C8 currently lists the first author, the title and volume title, and one or both of the following subject matter categories in Norwegian: datamaskinnett and kommunikasjonsprotokoller where these Norwegian terms are translated, respectively, as : computer network and communications protocol.

<u>Assumption i</u>: That in 1989-91, the BIBSYS system was available for use only at one of four universities in Norway and was not connected to any outside networks for use from anywhere else.

According to Rhyne, the "field of the invention of the Campana patents is [limited to] electronic mail communication systems." (Rhyne Supplemental Declaration, \P 46).

Rhyne goes on to testify that "one of ordinary skill in the art would be a person *focused* on the technology of electronic mail communications systems." *Id.* (emphasis added).

In his opinion, one of ordinary skill in the art in researching the field "would have searched for relevant materials using terms *such as* 'electronic mail,' 'email,' electronic message,' and/or *similar terms*." (Rhyne Supplemental Declaration, ¶ 47; emphasis added).

Assuming, says Rhyne, that a person would have been motivated to fly to Norway to use the BIBSYS computer system at one of the four Norwegian libraries, the person would have used those search strategies [*i.e.*, using the terms set out in \P 47], but would not have located any of the eight documents. *Id*.

Based on his underlying assumptions and opinions, Rhyne concludes that one skilled in the art would not have located the eight documents "exercising reasonable diligence." (Rhyne Supplemental Declaration, ¶ 50).

The problem facing the NTP inventors

Rhyne's focus on the "field of the invention" is too narrow. The field of the invention is broader than Rhyne would have us believe. For example, the specification of NTP's '670 patent states (col. 3:57 to col. 4:45) (emphasis added):

> As personal computers are used more frequently by business travellers, the problem of electronic mail delivery becomes considerably more difficult. A business traveller carrying a portable PC has great difficulty in finding a telephone jack to connect the PC to fetch electronic mail from either a host computer or a gateway switch. Connections for a PC's modem are difficult to find in airports and with the advent of digital PABX's in businesses the telephone connectors are incompatible with a PC's analog modem. Hotels and motels oftentimes have internal PABX's that prevent calls from automatically being placed by the user's PC to electronic mail gateway switches to retrieve information. Most portable PC modems will only operate correctly when connected to a true outside telephone line that has telephone battery voltages and dial tone available to permit the number to be dialed direct. The inability to find an appropriate connection to connect the PC modem when travelling has contributed to the degradation of electronic mail reception when the recipient is travelling. When travelling internationally, this problem is further compounded by the fact that most electronic mail gateway

mailboxes require a 1-800 toll free number to be dialed in order to connect the mailbox. Almost all 1-800 telephone numbers are available for continental use only and cannot be accessed from a foreign country.

Industry trends make it increasingly difficult to receive electronic mail. When PC's were exclusively considered an office or desktop machine, it was less difficult to deliver electronic mail. Advances in the state of the art in microelectronics have permitted PC's to be downsized to very lightweight portable (notebook), and notebook size computers. These portable units have the computing and storage power of the former desktop units and have lent themselves to the trend that they now become very portable in their utilization. They are small enough that they can easily fit into an attache case and/or a suit pocket. The net result is that the portable unit no longer resides in the office or the desktop. The portable unit now may be taken home at night, as well as on travel with the user, such as for business travel. Increased portability of PC's further aggravates the problem of automatic electronic mail delivery as a consequence of portability *eliminating the wired communication paths* which have been typically used in state of the art electronic mail systems. The electronic mail industry is currently experiencing a rapid growth rate.

Numerous communication companies are offering forms of electronic mail services. However, a problem arises that

> users of one electronic mail system currently cannot send electronic mail to a subscriber of another electronic mail system (e.g., AT&T E-mail to Sprint Mail, etc.). Numerous attempts are currently underway in the industry to solve this problem. Current attempts are the utilization of common protocols between electronic mail systems (e.g. X.400). However, the proposed system does not resolve the problems resultant from portability and travelling situations described above.

NTP's description of the background of the invention as set out above reveals that the subject matter to be researched or investigated is not limited to email. While it is true that email systems are relevant, no less relevant is wireless communication—or, to use the words of Sorsdahl: "mobile data networks" and "mobile telephony." (Sorsdahl Declaration, \P 7).

Because the problem as described by NTP is the elimination of wired communication paths previously relied on for sending email to people with a portable device, wireless communication of data is a technical field just as important, if not more, than email systems and messages, in the context of NTP's invention.

Rhyne does not explain precisely what he means by "focused" (does it mean solely focused or just principally focused?) and "similar terms" (such as?). (Rhyne Supplemental Declaration, ¶¶ 46 and ¶ 47).

To the extent there is a conflict in the testimony of Rhyne on the one hand and Sorsdahl on the other hand as to the field of the invention, we credit the testimony of Sorsdahl over that of Rhyne. The Sorsdahl

testimony is more consistent with the problem of sending and receiving email by wireless communication.

Review of "original" documents

The Board has reviewed two sets of what we will refer to as "original documents."

1. First set of "original" documents

The first set of documents consists of (1) seven of the eight documents filed by the third-party requester [References C2 through C7] and (2) the Browne declaration as filed by NTP.

The "official record" of the reexamination proceedings before us is contained in what the USPTO calls its IFW (image file wrapper). *See* Notification of United States Patent and Trademark Office Patent Application Records being Stored and Processed in Electronic Form, 1271 Off. Gaz. Pat. & Tm Office 100 (June 17, 2003).

We elected to retrieve from USPTO archives the paper form of the seven documents and the Browne declaration as filed in the USPTO in Reexamination Control 90/007,735, and have inspected the documents.

2. Observations on first set of "original" documents

a. Browne declaration

We find nothing we need to discuss with respect to the "original" Browne declaration filed by the requester with the USPTO.

Instead, we refer the reader to our discussion of the copy of the Browne declaration filed by NTP in response to our request for production of documents.

b. Seven of the eight "original" documents as filed by the requester

References C2 through C8 have been reviewed.

As filed by the third-party requester, each document was bound on the left side with plastic binder probably using a Velo® binder machine. The plastic Velo® binder has been removed, probably so that the USPTO could scan the documents into the Image File Wrapper (IFW) system. We do not know what happened to the plastic binder. Each of the documents has 11 small holes approximately ¹/₈ inch in diameter along the left side of each page.

Unlike the original Library documents examined by Browne, each of the third-party filed copies of References C2 through C7 contain on the upper-right hand corner of the cover page the following "stamp" (matter in italics is hand-written):

> True Copy Certified Royal Norwegian Embassy Washington, D.C., 07 22 2005 *B Ve Magnusson* Brita Ve Magnusson Vice Counsul

Further observations concerning References C1 through C8 appear below in connection with our discussion of the "original" eight documents.

The second set of "original" documents
 In order to better evaluate the Browne declaration, the Board
 determined that it wanted to review the "original" eight documents which
 were examined by Browne.

Accordingly, the Board ordered NTP to produce the "original" documents which were examined by Browne. *See* Order—37 C.F.R. § 41.50(d) (Request for production of original documents, entered 22 October 2008).

The Board also asked for a clear copy of the Browne declaration since portions of some Exhibits in the USPTO copy of the declaration in IFW are not clear.

A clear copy of the Browne declaration and the "original" eight documents were produced and filed with the Board on 23 October 2008.

We were told at oral hearing that, despite inquiries from the Library asking that the documents be returned, the eight documents have been in the possession of counsel for NTP between (1) the time of Browne's examination and (2) their being filed with the Board. (Hearing Transcript 29:27-30:9). NTP asks that the documents be returned "so that we may return them to the [L]ibrary in Norway from which they were obtained." (Letter dated 23 October 2008 from Brian M. Buroker, Esq., to Supervisory Trial Clerk Maria Vignone, page 2).

We will assume that the documents produced by NTP on 23 October 2008 are in essentially the same condition as they were when examined by Browne.

4. Observations on the documents produced by NTP

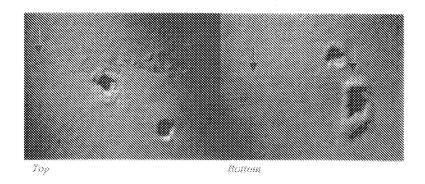
a. The Browne declaration

(1)

In \P 10 on page 3 of a report (Exhibit 2) accompanying the Browne declaration, Browne states:

I noted there were slight abrasions on the paper within the pair of old staple holes at the top of page 7-1 [of Reference C1]. Similar scratches can be seen within the pair of old staples holes at the bottom (See pictures below). These marks are clear signs that an implement was used to remove staples from the page/s.

There follows a "picture". In the IFW record, the "picture" is not clear. However, Exhibit 3 attached to the "original" Browne report is clear. It shows holes and marks on the top and bottom of page 7-1. A copy of what appears in Exhibit 3 is set out below (*see also* (069)):



Scratch marks in paper near staples on page 7-1 of NTA report 30/86

(2)

Browne observed a difference between the "header" on pages of Reference C2 (Report 3/89) and the remaining text on those pages. (*See*

Exhibit 2, \P 24 on page 4 of the Browne report accompanying the Browne Declaration).

A copy of part of page 1 of Reference C2 (TF-Report 3/89) is reproduced below:

Volume 1: Network Architecture, Addressing and Routing

1 Introduction

This volume deals with the network architecture, addressing and routing within the MDN.

2 Network Architesture

2.1 Terms and definitions concerning the network architecture

The MON architecture is shown in Figure 1.

The difference between the header "Volume 1: Network Architecture, Addressing and Routing" and the remaining text on page 1 "1. Introduction ... Figure 1." is apparent.

(3)

The pages of Reference C4 (TF-Report 5/89) have what is known as a "trash mark" on each page. Trash marks can appear on documents reproduced on a photocopier. The trash mark on Reference C4 is approximately $4-\frac{5}{8}$ inches from the top of each page and approximately $\frac{7}{8}$ inches from the right side of the page (070-071). A similar trash mark appears on all the pages of Reference C4. Browne explains the trash marks at ¶ 26 on page 5 of his report.

In ¶¶ 27-28, Browne then states:

> 27. According to the TF front sheet [*i.e.*, the third page] it [*i.e.*, Reference C4,] was produced on the same date—6/2/89 [*i.e.*, "Dato" 800206]—as the other two documents [*i.e.*, References C2 (TF-Report 3/89) and C3 (FT-Report 4/89)]. They [*i.e.*, References C2 and C3] do not have the same trash mark.

28. I cannot explain how three documents, allegedly produced on the same date, using the same paper and all by photocopier, do not produce the same trash marks.

(4)

In ¶¶ 31-33 of his report, Browne has the following to say about References C8 (TF-Report 8/89) and C9 (TF-Report 9/89).

31. Document 8/89, Volume 8, was also produced on 6/2/89. It does not have the trash marks seen in 5/89, Volume 3 [Reference C4]. It does have the same problems with the header throughout, in that the contents of each page were copied onto a page already bearing the header. Pages up to page 14 are loose, having become detached from the binding strip. I note that the pages from page 83 to the end are produced on similar paper [that] was used for the bulk of the previous books—3/89, Volume 1 to 7/89, Volume 6 [References C2 through C7]. However, the first pages, i.e., up to page 82 are significantly lighter under UV (see picture above—comparing pages 82 with 83. The difference between the papers can also be seen in normal lighting. This book [*i.e.*,

Reference C9] has clearly been produced on two separate papers and probably at different times.

[A clear copy of the "picture above" mentioned in ¶ 31 is a rectangle divided in half. *See* Exhibit 6 attached to the Browne report. The left half is a UV of page 82 and the right half is a UV of page 83. The left half is a lighter blue than the right half and there is a visible contrast between the two blues. Part of the right half appears to be almost purple (072).]

32. Document 9/89, Volume 7 [Reference C8], has the same header problems mentioned above. The whole document has been produced on the lighter paper used for the first half of 8/89, Volume 8 [Reference C9]. This document [Reference C8] was produced on 15/2/89 [*see* the third page—"Dato" 890215. "15/2/89" means 15 February 1989]. The picture shows the comparison of pages 14 of 9/89, Volume 7 with 3/89, Volume 1.

[A clear copy of the "picture" mentioned in ¶ 32 is a rectangle divided in half. *See* Exhibit 7 attached to the Browne report. The left half is a UV of a page from 3/89 (073) and the right half is a UV of a page from 9/89 (073). The caption below the picture is "UV reaction of the paper in 3/89 compared with that in 9/89." The left half is dark, almost black in color. The right half is dark

blue at the top and dark purple at the bottom. There is a visible contrast between the left and right sides.]

33. What is difficult to explain is why the first half of book 8/89 [Reference C9], Volume 8, is on paper that is the same as that used for the next book in the series (produced some days later) while the second half uses the same paper as the previous 5 books. It should be borne in mind that the TF sheet [*i.e.*, the third page in each book including the cover page,] giving the date of production is produced on paper that was used on 15/2/89—even though the date shown is 6/2/89, the same as the previous dates.

b. The original Library material—the eight documents

(1) <u>Reference C1</u>

Reference C1 contains paper pages which were at one time bound with (1) a plastic front cover and (2) a light blue back paper (004 and 005) which extends around to the front covering about 1 inch of the left front cover. There is some damage to the upper portion of the spine (052). The light blue paper is the kind one often sees in legal documents, like wills. The document appears to have been held together with three staples. The staples in Reference C1 as received by Browne were removed by Browne and have been preserved (007). (Browne Declaration, Exhibit 2, page 2, ¶ 7). The document is about $\frac{3}{8}$ inches thick.

The authors are identified as:

Terge Henriksen Stig Kaspersen

Geir Thorud

Finn Trosby

At the top left corner of the first paper page, the following handwritten notation appears: 621.39(06)tqR18 (066).

A date stamp (made with an ink date stamp) appears half way down the page on the right side (067):

Norges tekniske

23 MAI 1986

universitetsbibliotek

Browne testified that he could not vouch for the authenticity of the date stamp of Reference C1 or of References C2 through C8. (Browne Declaration, ¶¶ 42-43). We have no basis to question the authenticity of the dates stamped on References C1 through C8.

In the lower right hand corner of the first paper page, perforated holes which spell out (011):

N.T.H.

Bibliotek

On the back side of the first paper page there is a bar code with the number 86a008658 (068).

(2) <u>Reference C2</u>

Reference C2 (TF-Report 3/89—Volume 1) (008) contains paper pages bound with a dark blue cloth binder (009). Browne refers to the bound pages being "Perfect' bound" and he describes certain advantages of a Perfect binding system. (Browne Declaration, ¶¶ 25-26). The document is about ¹/₈ inches thick.

The authors are identified as:

Stig Kaspersen John Reidar Rørnes

Geir Ivar Thorud

Finn Trosby

At the top left corner of the cover page, the following handwritten notation appears: 621.39(06)tqR18 (010).

A date stamp (made with an ink date stamp) appears half way down the page on the left side (009):

Norges tekniske

22 FEB. 1989

universitetsbibliotek

In the lower right hand corner of the first paper page, perforated holes—similar to those on Reference C1—spell out (013):

N.T.H.

Bibliotek

On the back side of the first paper page there is a bar code with the number 89a012956 (012).

(3) <u>Reference C3</u>

Reference C3 (TF-Report 4/89—Volume 2) (050) contains paper pages bound with a dark blue cloth binder (050). The document is about 5/16 inches thick.

The authors are identified as:

Stig Kaspersen

Geir Ivar Thorud

Finn Trosby

At the top left corner of the cover page, the following handwritten notation appears: 621.39(06)tqR18 (050, upper left-hand corner).

A date stamp (made with an ink date stamp) appears half way down the page on the left side (050):

Norges tekniske

22 FEB. 1989

universitetsbibliotek

In the lower right hand corner of the first paper page, perforated holes—similar to those on Reference C1—spell out (015):

N.T.H.

Bibliotek

On the back side of the first paper page there is a bar code with the number 89a012955 (016).

Browne observed the following (Browne Declaration, ¶ 33):

I note that the page numbering [of Reference C3] changed for the annex, *i.e.* after page 107. The numbers move

from the outside of the page to the inside [see (074 and 075)].

Review of the original document confirms Browne's observations. However, there is more to the story.

Reference C3 consists of (1) a cover (050), (2) four pages of introductory material, *e.g.*, table of contents, (3) pages 1 through 107 of descriptive text (with page numbers on the *outside* of each page (074)), (4) Annex 1 [Data Tables with MDX] with pages 1-2 numbered on the *inside* of the page (075), (5) Annex 2 [Description of procedures in MDX

and MS] with pages 1-17 numbered on the *inside*, and (6) a back cover. An Annex in the context of the document is what normally we would call appendix—such as Appendix 1 to this opinion listing photographs. Nothing about the page numbering strikes us as being unusual.

(4) <u>Reference C4</u>

Reference C4 (TF-Report 5/89—Volume 3) (018) contains paper pages bound with a dark blue cloth binder (017). The document is about 5/16 inches thick.

The authors are identified as:

Geir Ivar Thorud

Finn Trosby

At the top left corner of the cover page, the following handwritten notation appears: 621.39(06)tqR18 (021).

A date stamp (made with an ink date stamp) appears half way down the page on the left side (022):

Norges tekniske

24 APR. 1989

universitetsbibliotek

In the lower right hand corner of the first paper page, perforated holes—similar to those on Reference C1—spell out (019):

N.T.H.

Bibliotek

On the back side of the first paper page there is a bar code with the number 89a012954 (020).

As earlier mentioned in this opinion, Browne discussed a "trash" mark on the pages of Reference C4. (Browne Declaration, Exhibit 2, page 5, ¶ 26). We have been able to confirm that the "trash" mark is present on the pages of the document (070 and 071—note black dot where pencil points).

(5) <u>Reference C5</u>

Reference C5 (TF-Report 6/89—Volume 4) (023) contains paper pages bound with a dark blue cloth binder (024). The document is about $\frac{1}{4}$ inches thick.

The authors are identified as:

Geir Ivar Thorud

Finn Trosby

Trond Harald Wettre

At the top left corner of the cover page, the following handwritten notation appears on a piece of cloth attached to the cover: 621.39(06)tqR18 (024).⁸

A date stamp (made with an ink date stamp) appears half way down the page on the left side (076):

Norges tekniske

22 FEB. 1989

universitetsbibliotek

In the lower right hand corner of the first paper page, perforated

holes—similar to those on Reference C1—spell out (025):

N.T.H.

⁸ On the cover, a handwritten "Anal" appears on cloth attached to the cover. While in our possession, the cloth with "Anal" came loose. We have reattached the cloth using ScotchTM tape.

Bibliotek

On the back side of the first paper page there is a bar code with the number 89a012953 (026).

(6) <u>Reference C6</u>

Reference C6 (TF-Report 7/89—Volume 6) (028) contains paper pages bound with a dark blue cloth binder (030). The document is about $\frac{1}{8}$ inches thick.

The authors are identified as:

Stig Kaspersen

Geir Ivar Thorud

Finn Trosby

At the top left corner of the cover page, the following handwritten notation appears on a piece of cloth attached to the cover: 621.39(06)tqR18 (030).

A date stamp (made with an ink date stamp) appears half way down the page on the left side (029):

Norges tekniske

22 FEB. 1989

universitetsbibliotek

Unlike any of the other documents, a second date stamp appears half way down the page on the right side (029):

RECEIVED

JUN 23, 2005

NOVAK DRUCE--DC

In the lower right hand corner of the first paper page, perforated holes—similar to those on Reference C1—spell out (032):

N.T.H.

Bibliotek

On the back side of the first paper page there is a bar code with the number 89a012951 (031).

(7) <u>Reference C7</u>

Reference C7 (TF-Report 9/89—Volume 7) (033) contains paper pages bound with a dark blue cloth binder (035). The document is a little less than $\frac{1}{8}$ inches thick.

The authors are identified as:

Stig Kaspersen

Geir Ivar Thorud

Finn Trosby

At the top left corner of the cover page, the following handwritten notation appears on a piece of cloth attached to the cover: 621.39(06)tqR18 (035).

A date stamp (made with an ink date stamp) appears half way down the page on the left side (034):

Norges tekniske

24 APR.1989

universitetsbibliotek

In the lower right hand corner of the first paper page, perforated holes—similar to those on Reference C1—spell out (036):

N.T.H.

Bibliotek

On the back side of the first paper page there is a bar code with the number 89a012947 (037).

(8) <u>Reference C8</u>

Reference C8 (TF-Report 8/89—Volume 8) (040) contains paper pages bound with a cloth binder (041). The document is about 5/16 inches thick.

The authors are identified as:

Geir Ivar Thorud

Finn Trosby

Trond Harald Wettre

At the top left corner of the cover page, the following handwritten notation appears: 621.39(06)tqR18 (041; 039).

A date stamp (made with an ink date stamp) appears half way down the page on the left side (039):

Norges tekniske

24 APR.1989

universitetsbibliotek

Over the stamped date, written in blue ball-point pen, appears (039)

24 April 89

In the lower right hand corner of the first paper page, perforated holes—similar to those on Reference C1—spell out (042):

N.T.H.

Bibliotek

On the back side of the first paper page there is a bar code with the number 89a012949 (059).

The first fourteen (14) pages of the document have come loose from the binder (043, 044). Browne also found that the first fourteen (14) pages had come loose. (Browne Declaration, \P 39).

(9) Other observations

Facially, all eight documents appear to be "normal." To our untrained eye, the documents do not appear to have been altered or manipulated (in an inappropriate manner).

When all documents are placed side by side, a photo from the spine reveals some red ink marks (052). We do not know the significance of those red ink marks.

Miscellaneous findings

Browne states that he did not go to the Library in connection with his examination of the eight documents. Browne, therefore, cannot state whether similar documents in the Library collection have similar characteristics.

NTP and those associated with NTP (*e.g.*, counsel, Browne) made no attempt to locate or contact the authors of the eight documents. (Hearing Transcript 24:21-25:26). Likewise, there is no indication on the record that the third-party requester contacted the authors. These authors would be expected to have no interest in patent issues between NTP and RIM. Further, these authors might have been able to shed some light on the differences, if any, between the documents they prepared in 1986 and 1989

and the documents examined by Browne. NTP and RIM made a "litigation" decision not to find the authors; both now live with that "litigation" decision.

In its Reply Brief, page 30, NTP states that the documents "were obtained by the third party requester, RIM, and are therefore of dubious authenticity or reliability...." There is no basis to assume that the documents are "dubious" because they were presented by RIM. An inference that a third-party was "up to no good" in presenting a document has no place in a reexamination proceeding unless the patent owner has proof that something inappropriate occurred.

4. Discussion

(1) <u>Authenticity</u>

(a)

A prior art document relied upon to (1) defeat a patent applicant during examination under 35 U.S.C. § 132, (2) defeat a patent owner during reexamination and (3) have a court declare a patent invalid in a civil action for patent infringement should be "authentic." Before the USPTO, the proponent of a prior art document must initially establish the prima facie authenticity of the document. The standard of proof is preponderance of the evidence—meaning the document is more likely authentic than not. *Concrete Pipe & Prod. of Cal., Inc. v. Constr. Laborers Pension Trust for S. Cal.*, 508 U.S. 602, 622 (1993).

Once a prima facie case of authenticity is established by a preponderance of the evidence, the patent owner in a reexamination may come forward with evidence to establish a lack of authenticity.

We then evaluate all the evidence and determine whether the examiner erred in finding the documents to be authentic.

Unlike a civil action in district court or an interference before this Board, the Federal Rules of Evidence do not control the admissibility of evidence. Hearsay evidence is "admissible" and may be considered. In re Epstein, 32 F.3d 1559, 1565 (Fed. Cir. 1994). Likewise, third-party statements, such as statements in the Pasquine and Sorsdahl declarations and the Digernes letter, may be "admissible." In re Reuter, 670 F.2d 1015, 1020-21 (CCPA 1981). However, mere uncorroborated hearsay or rumor is not sufficient to establish a fact. Consol. Edison Co. of N.Y. v. NLRB, 305 U.S. 197, 229-30 (1938). The weight to be accorded any evidence, including hearsay evidence, presented in an ex parte reexamination proceeding is a matter we determine through the exercise of sound discretion. In re Am. Acad. of Sci. Tech Ctr, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (Board has broad discretion to determine weight to be given evidence, including declaration evidence); J.C. Equipment Corp. v. England, 360 F.3d 1311, 1315 (Fed. Cir. 2004) (the trier of fact's responsibility is to determine the weight (if any) to be given all the evidence, whatever its character).

(b)

The third-party requester filed copies of References C1 through C8 as part of an ex parte request for reexamination. The documents appear regular on their face. The Digernes letter outlines the procedure for receiving, cataloguing and shelving documents. The Digernes letter is countersigned by Ingar Lomheim, the Library Director. As we noted earlier, the Library does not have a dog in the fight between NTP and RIM—in fact we view the

Library as a neutral observer doing its best to communicate to NTP and RIM (and ultimately us) how the Library functions. The procedure set out in the Digernes letters is consistent with a review of the "original" documents.

For example, the Digernes letter says one step in the receipt to shelving process is to date stamp receipt of the document. We find a date stamp on References C1 to C8. We have absolutely no reason to question the accuracy of those date stamps. Just as employees of the Government of the United States government are presumed to have done their job correctly, on the record before us, we see no reason to apply a different standard to employees of the Government of Norway.

Another example is the presence of the "621.39(06)tqR18" and "Anal" hand-written notes on the cover of each document. The Library Director tells us the Library makes the hand-written notations before shelving and we have absolutely every reason to believe the handwritten notes were placed on the documents exactly as the Library Director says they were.

The procedure followed in this case, *i.e.*, obtaining a letter from the Library, is consistent with the procedure followed by the USPTO in other cases when receipt, cataloguing and shelving issues arise in connection with a reference, *e.g.*, a thesis in a university library. We do not take live testimony in an ex parte reexamination. Accordingly, neither the third-party requester nor the patent owner could "call" the Library Director. The Digernes letter is the best the third-part requester, the patent owner and the USPTO could expect. While "hearsay" in the strictest sense, it is consistent with the physical evidence and we accord the letter considerable weight.

That being the case, we have no basis for holding that the Examiner erred in finding, prima facie, that the eight documents are authentic.

In its Reply Brief, NTP argues that more weight should be given to the "sworn" testimony of its witnesses vis-à-vis the unsworn testimony of officials of the Library. We disagree. While the NTP witnesses and the third-party requester's witnesses may be characterized as interest witness, the officials of the Library have no interest in the matter before us. There is no reason to doubt their "unsworn" testimony given how consistent it is with the physical evidence.

NTP also makes much of the fact that a Library official was not willing to give a "sworn" statement when asked by RIM. (Reply Brief 30). NTP has not told us whether it asked for the same "sworn" statement. In any event, the complications of litigation in the United States are well-known and we would go as far as to sympathize with an employee of a Norwegian library not wanting to provide an American lawyer with a "sworn" statement prior to consultation with legal counsel for the Library.

(c)

NTP hired Browne—a forensic document examiner—to look into the documents. Browne found various characteristics of the documents which seem to give him pause. We do not share Browne's concerns. While we need not address all of Browne's concerns, we will discuss a few. In discussing the concerns, we keep in mind that we are not dealing with a criminal law standard of proof (beyond a reasonable doubt). Instead we are dealing with a "civil" matter where the standard of proof is preponderance of the evidence.

To establish a fact by a preponderance of the evidence it must be shown that the fact is more likely true than not. A fact cannot be established by a preponderance based on "possibilities." Rather, it must be established based on "probabilities." The difference is significant. Rapoport v. Dement, 254 F.3d 1053, 1063 (Fed. Cir. 2001) (inherency, a question of fact, cannot be established by a preponderance of the evidence based on evidence that a certain thing may result from a given set of circumstances); In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999) (inherency cannot be established by the mere fact that a certain thing may result from a given set of circumstances); Hansgirg v. Kemmer, 102 F.2d 212, 214 (CCPA 1939) (inherency may not be established by probabilities or possibilities; the mere fact that a certain thing may result from a given set of circumstances is not sufficient); Central State Hospital v. Wiggers, 335 S.E.2d 257, 258 (Va 1985) (possibilities, conjecture and speculation are not sufficient to establish something by a preponderance of the evidence); Scripps Research Institute v. Nemerson, 72 USPQ2d 1122, 1125 (BPAI 2004) (possibilities do not amount to a preponderance of the evidence).

Browne, with commendable candor, concedes, as he must, that there is significant "factual" information he does not know. (Browne Declaration, ¶ 49—knowledge of other documents in the Library).

Throughout his testimony, Browne seems to assume that one Reference document was "photocopied" at the same time another Reference document was "photocopied." The assumption seems to be based on the date stamp placed on the document by the Library or the date the Library

says it received the document. However, there is no credible evidence which establishes that a photocopy date was or is a function of a receipt date.

Browne also has pause about certain References because they are printed on different paper, *i.e.*, they were "photocopied" on different paper. From this fact, Browne and NTP invite us to find that there was some inappropriate alteration of the documents at some unknown time. We decline the invitation. *First*, a plausible *possibility* (not a probability) is that after photocopying the authors or their "secretaries" were not satisfied with the "results" of certain pages and therefore they "re-photocopied" those pages so that a "good looking" document would be filed with the Library. Second, pages may have been substituted during the proofreading step between receipt and shelving at the Library. Third, Browne concedes that if there was an alteration, he does not know when it occurred. NTP essentially wants us to figure out that there was an inappropriate alteration by "someone," yet NTP fails to identify any "someone" who would have had a motive to engage in inappropriate alterations. NTP, without any real basis, wants us to believe someone did something they were not supposed to do. On the record before us, it appears all involved did what they were supposed to do and did it in an honest manner.

Browne has a concern with the header on pages of some documents vis-à-vis the text on the same page. Browne reasons that "photocopies" may have been made using paper which already had the header. Browne does not testify whether copying of documents on paper with a header was unusual at the time the documents were prepared. Rather, Browne "speculates" in this case that "something may not be right."

The patent owner made no attempt to locate the authors. (Hearing Transcript 24:21-25:26). Much of the speculation and possibilities might have been clarified had one or more of the authors been contacted. As noted earlier, a litigation decision not to contact the authors is something NTP has to live with.

With respect to Reference C1, one reason staples *might* have been removed by the Library was to replace a torn page. Also removal of staples would make copying the document easier. After copying, the staples would be "replaced" with new staples. Removal of the staples does not give us pause even if it gives Browne pause.

We have considered all of the Browne testimony, but we decline to credit that testimony to the extent it attempts to persuade us that any of References C1 through C8 were altered in some inappropriate way after they were received, catalogued and shelved by the Library.

In assessing the weight to be given the Browne testimony, we in no way suggest that he is not telling us the truth about his examination or his findings. What we cannot accept are findings which are based on possibilities and speculation. Even if Browne's possibilities and speculation could be argued to be a "reasonable doubt" in a criminal case, they do not overcome the credible account provided to the USPTO through the Digernes letter countersigned by the Library Director.

(d)

We hold that NTP has failed to show that the Examiner erred in finding that the copies of References C1 through C8 filed by the third-party requester are authentic.

(2) Accessibility

NTP maintains that the third-party requester provided copies of References C1 through C8, which the third-party requester obtained from the Library in 2005. A reference with a 2005 prior art date, of course, is not prior art to NTP.

NTP's "beef" with the eight documents seems to be whether the documents reasonably could be accessed at the Library by a person of ordinary skill in the art. NTP says "no" and the third-party requester says "yes." The Examiner agreed with the third-party requester. The issue becomes whether NTP has shown that the Examiner erred.

Because NTP tells us that no one in the Library would "agree to provide an affidavit or declaration attesting to any facts," NTP has made several assumptions (Brief 54-55). Those assumptions are the same as those made by Rhyne.

The existence of a single printed document, sufficiently catalogued and available at a public library, generally is a printed publication within the meaning of 35 U.S.C. § 102. For example, a single printed thesis properly catalogued and shelved in the library of Freiburg University in Germany was held to be a printed publication. *In re Hall*, 781 F.2d 897, 899-900 (Fed. Cir. 1986). Hall demonstrates that Rhyne's concern whether anyone would have "been motivated to fly to Norway" is irrelevant. (Rhyne Supplemental Declaration, ¶ 47). On the other hand, a single "thesis" received by the library of the University of Toledo in Ohio, but in no way catalogued or shelved, was held not to be a printed publication. *In re Bayer*, 568 F.2d 1357, 1362 (CCPA 1978). A thesis "partially" catalogued, such as a thesis

at Reed College in Portland Oregon, via author index cards stored in a shoelike box, was held not to be a printed publication. *In re Cronyn*, 890 F.2d 1158, 1161 (Fed. Cir. 1989). The 2-1 vote in *Cronyn* shows that the issue can be fairly debatable.

The case before us is much closer to *Hall* than it is to either *Bayer* or *Cronyn*. Nevertheless, each case is considered on its own facts. *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004). One fact of interest is a comparison of the letters to the USPTO from Freiburg University in *Hall* (found to be sufficient) and the Digernes letter before us (which contains considerably more detail than the letter to the USPTO in *Hall*). The case before us is not an index card collection in a shoe box. The case before us is not an uncatalogued and unshelved thesis. Rather, the eight documents were received, catalogued and shelved in the Library before the NTP inventors entered the field.

While Rhyne says a person skilled in the art would not have been able to locate the eight documents in the BIBSYS system in place in the Library, Sorsdahl has a different view. As noted earlier, we have credited the Sorsdahl view over that of Rhyne. We find, therefore, that the eight documents were accessible and that a reasonable search of the Library would have uncovered the documents.

In making our findings and reaching our decision, we note that someone found the eight documents. We are not sure by what process, or how the eight documents were found. According to NTP, "[t]he only evidence . . . is a Wall Street Journal article indicating that RIM became aware of the documents as a result of a 'tip' from an industry insider."

(Reply Brief 39). Even if RIM was "tipped" off to the documents, we have resolved the accessibility issue on the basis of the evidence before us without according the Wall Street Journal article much, if any, weight. On evidence before us, we are satisfied that the documents (1) were timely received, cataloged and shelved in the Library, (2) were accessible and (3) that one skilled in the art reasonably could have found the eight documents using the tools available in the Library. Nothing more is needed.

NTP has failed to establish that the Examiner erred in holding the eight documents to be printed publications within the meaning of 35 U.S.C. § 102.

I. Antedating the Prior Art

1. Procedural History

An Examiner rejected numerous NTP claims under 35 U.S.C. § 103 as unpatentable over a number of references. Those references included the Perkins, Harrison and Hortensius patents. Each of the patents has an effective date of October 29, 1990. NTP's earliest application for which it claims benefit was filed later on May 20, 1991, giving NTP a possible constructive reduction to practice no earlier than that date.

During prosecution NTP offered a showing under 37 C.F.R. § 1.131 attempting to antedate the patents. The examiner was unconvinced by the showing and maintained the rejections. NTP appealed.

After an oral argument, we ordered additional briefing on the issue of antedation. (Order mailed November 6, 2008). The order found:

that the Appeal Brief and Reply Brief (the latter basically restating what is found in the former) do not permit us to understand in any cogent way the issues raised by NTP.

> Accordingly, we invite NTP to file a supplemental brief in response to this order. Our expectation is that a supplemental brief will permit us to address the Rule 131 showing issue in a meaningful way.

(Order mailed November 6, 2008, 4). The order noted that NTP had not provided guidance explaining how the evidence relied upon established facts sufficient to support a holding of invention prior to the effective filing dates of the Perkins, Harrison and Hortensius patents. (Order mailed November 6, 2008, 5).

NTP filed its first supplemental brief on § 1.131 matters and the accompanying exhibits. (NTP 1st Supplemental Brief received December 15, 2008). We reviewed the paper and exhibits and held that NTP failed to establish a date of invention prior to the effective filing date of the Perkins, Harrison and Hortensius patents. (Memorandum Opinion and Order Mailed, February 18, 2009, 33). However, our opinion noted that we used a different rationale for holding NTP's § 1.131 effort insufficient. We allowed NTP to file an additional brief and additional evidence on its antedating effort. (Memorandum Opinion and Order Mailed, February 18, 2009, 33). NTP filed a second supplemental brief and additional evidence. (2nd Supplemental Brief filed April 22, 2009).

2. Principles of Law – Antedation under 37 C.F.R. § 1.131

The purpose of filing a 1.131 declaration is to demonstrate that the applicant invented the subject matter of the rejected claims prior to the effective date of a reference. 37 CFR 1.131(a); *In re Asahi/America Inc.*, 68 F.3d 442, 445 (Fed. Cir. 1995). Section 1.131(a) (2003) provides in relevant part:

(a) When any claim of . . . a patent under reexamination is rejected, the inventor of the subject matter of the rejected claim, the owner of the patent under reexamination, . . . may submit an appropriate oath or declaration to establish invention of the subject matter of the rejected claim prior to the effective date of the reference or activity on which the rejection is based. The effective date of a U.S. patent, . . . is the . . . date that it is effective as a reference under 35 U.S.C. 102(e). . . .

The rule specifically requires the presentation of evidence proving facts establishing either (1) prior conception of the invention and diligence from before the effective date of the reference to a subsequent actual or constructive reduction to practice or (2) an actual reduction to practice of the invention prior to the effective date of the reference. 37 C.F.R. § 1.131(b); *In re Costello*, 717 F.2d 1346, 1349 (Fed. Cir. 1983). Section 1.131(b) specifies the quality of proofs that are necessary:

(b) The showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application.

The rule also requires more than just the oath or declaration of the inventors generally averring that they conceived or reduced to practice the subject matter of the claims before the date of the reference. It requires objective evidence supporting the inventor's testimony:

> Original exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence must be satisfactorily explained.

37 C.F.R. § 1.131(b).

The one asserting a prior date of invention bears the burden of establishing facts necessary to prove earlier conception or an earlier actual reduction to practice. 37 CFR § 1.131(b); *In re Facius*, 408 F.2d 1396, 1404 (CCPA 1969). Thus, NTP bears the burden of proving prior conception or actual reduction to practice of the rejected subject matter.

Conception and reduction to practice are well defined in patent law. "Conception is the formation 'in the mind of the inventor of a definite and permanent idea of the complete and operative invention, as it is therefore to be applied in practice." *Singh v. Brake*, 317 F.3d 1334, 1340 (Fed. Cir. 2003) *quoting Kridl v. McCormick*, 105 F.3d 1446, 1449, (Fed. Cir. 1997) (citations omitted). An idea is definite and permanent when the inventor has a specific, settled idea, a particular solution to the problem at hand, not just a general goal or research plan he hopes to pursue. *See Fiers v. Revel*, 984 F.2d 1164, 1169, (Fed.Cir. 1993); *Amgen, Inc. v. Chugai Pharmaceutical Co.*, 927 F.2d 1200, 1206, (Fed.Cir. 1989). Conception "is complete only when the idea is so clearly defined in the inventor's mind that only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation." *Burroughs Wellcome Co. v. Barr Laboratories Inc.*, 40 F.3d 1223, 1228 (Fed. Cir. 1994).

Proof of conception requires objective evidence of the inventor's subjective beliefs. *Invitrogen Corp. v. Clontech Laboratories Inc.*, 429 F.3d 1052, 1064 (Fed. Cir. 2005). Those proofs must address all limitations of the claimed invention. *Burroughs Wellcome*, 40 F.3d at 1228, *citing Coleman v. Dines*, 754 F.2d 353, 359 (Fed.Cir. 1985) (conception must

include every feature of claimed invention). There must be evidence establishing what was in the inventor's mind prior to the critical date by objective evidence of what the inventor has disclosed to others, and what that disclosure would fairly suggest to one of ordinary skill in the art. *In re Jolley*, 308 F.3d 1317, 1323 (Fed. Cir. 2002).

Actual reduction to practice occurs when a physical embodiment of the claimed subject matter has been made or, in the case of a process, the process has actually been performed.

Actual reduction to practice requires proof of an actual physical embodiment or performance of a process that includes all limitations of the claims. *In re Garner*, 508 F.3d 1376, 1380 (Fed. Cir. 2007); *UMC Electronics Co. v. U.S.*, 816 F.2d 647, 652 (Fed.Cir. 1987), *cert. denied*, 484 U.S. 1025 (1988) ("[U]nder our precedent there cannot be a reduction to practice of the invention here without a physical embodiment which included all limitations of the claims."); *Hummer v. Administrator of National Aeronautics & Space Administration*, 500 F.2d 1383, 1387 (CCPA 1974).

While logically conception of an invention should precede reduction to practice. That is not always the case. Depending on the particular facts, conception and reduction to practice may occur simultaneously. *Burroughs Wellcome*, 40 F.3d at 1228; *Amgen, Inc. v. Chugai Pharmaceutical Co.*, 927 F.2d 1200, 1206 (Fed.Cir. 1989); *Alpert v. Slatin*, 305 F.2d 891, 894, (CCPA 1962).

While the definitions of conception and actual reduction to practice are the same for both Rule 131 practice and interference, the proofs

sufficient to show prior conception or actual reduction to practice can be different. In an interference, proof of conception and reduction to practice must demonstrate conception or reduction to practice of all the limitations of the count. With respect to § 1.131, the focus is not on a count but on the subject matter of the rejected claims. 37 C.F.R. § 1.131(a). While the language of that rule expressly requires proof demonstrating prior invention "of the subject matter of the rejected claims," the jurisprudence interpreting § 1.131 holds that proof of conception or actual reduction to practice of subject matter that would render the subject matter of the rejected claims obvious to a person skilled in the art may be sufficient. E.g., In re Stryker, 435 F.2d 1340, 1341 (CCPA 1971). However, all limitations of the rejected claims must be accounted for whether the proofs show each limitation of the rejected subject matter or render the limitation obvious. See In re Spiller, 500 F.2d 1170,1176-77 (CCPA 1974) (CCPA evaluated the each of the claim limitations that were not included in the actual reduction to practice shown in the § 1.131 affidavit and held each would have been obvious to one having ordinary skill in the art).9

As the burden of establishing facts showing an earlier date of invention rests with the one asserting an earlier date (37 CFR § 1.131(b); *Facius*, 408 F.2d at 1404), the burden of establish that differences between

⁹ Under the jurisprudence relating to § 1.131, conception and actual reduction to practice may also be proved by facts demonstrating the prior invention of an embodiment that meets the claim limitations and also includes as much of the invention as taught in the references. *In re Tanczyn*, 347 F.2d 832 (CCPA 1965).

the conception or actual reduction to practice and the rejected subject matter are such that the claimed invention would have been obvious also rests with the one asserting an earlier date of invention.

NTP argues that the correct legal standard for conception requires only evidence of an idea. (2nd Supplemental Brief, 7-9). NTP's argument is correct but incomplete. The idea must be of a "complete and operative invention, as it is therefore to be applied in practice." *Singh*, 317 F.3d at 1340. To prove conception, the evidence must also establish the idea included all the limitations of the rejected claims. *Burroughs*, 40 F.3d at 1228. Thus, assuming, for example, that the NTP inventors had the broad general idea of and were working on wireless e-mail prior to the effective date of the references, possession of that general idea would not establish prior invention of the "subject matter of the rejected claims" as required by § 1.131.

3. Summary of Decision on Antedation

We have considered NTP's 1st and 2nd Supplemental briefs and reviewed the evidence relied upon. NTP failed to meet its burden of showing facts establishing either prior conception or prior actual reduction to practice of subject matter that would have rendered obvious the invention of the rejected claims. NTP's proofs do not establish that they had a complete conception or actual reduction to practice of something that would have rendered obvious the claimed wireless e-mail system and process including all of the limitations of the rejected claims prior to the effective date of the Perkins, Harrison and Hortensius patents. Specifically, NTP has not proved by a preponderance of the evidence a prior conception or actual

reduction to practice of a system or process including (1) wirelessly transmitting originated information in an electronic mail system, *e.g.*, an email message¹⁰ and (2) sending other originated information without using the RF transmission system.

Since prior conception has not been proved, it is unnecessary for us to consider NTP's case on diligence.

4. Analysis

I. NTP's antedation case

The effective date of the Perkins, Hortensius and Harrison patents is October 29, 1990. NTP alleges a conception in July of 1990 or no later than October 6, 1990. (1st Supplemental Brief, 5). NTP also alleges an actual reduction to practice "no later than October 26, 1990." (1st Supplemental Brief, 14). NTP argues that the subject matter of each of the 328 rejected claims "were conceived in July of 1990, actually reduced to practice by no later than October 26, 1990...." (1st Supplemental Brief, 25:18-19).

To prove conception and actual reduction to practice, NTP relies on what it calls an element-by-element analysis of the claims of its patent. (1st Supplemental Brief, 25-48). NTP's approach essentially reproduces each independent claim, and following selected portions, adds a parenthetical said to identify "the element or other support for conception and/or actual

¹⁰ Section A includes our interpretation of "originated information" and "electronic mail system" in the context of the claims. Although we have determined that "originated information" in the context of the claims is "electronic mail" or "electronic mail message," we disagree that "electronic mail" or "electronic mail message" should be interpreted as narrowly as suggested by NTP. In this section of the opinion, we sometimes refer to "originated information" in the context of the claims as "an e-mail message" or "e-mail" like NTP does. (See, e.g., 1st Supplemental Brief, 5:11-12).

reduction to practice, followed by a slash ("/"), followed by the element or other support for constructive reduction to practice" in the specification of Patent 5,436,960. (1st Supplemental Brief, 26, n. 2). For example, with respect to the Claim 1 limitation requiring that the e-mail information originating from an originating processor be sent wirelessly, NTP submits the following:

[information] originating from one of the plurality of originating processors and being transmitted by an RF information transmission network (e.g., Network, DF's 1-18, 35, 90/RF information transmission network 302)

(1st Supplemental Brief, 26:14-15). NTP tells us that "everything to the right of the "/" describes constructive reduction to practice as demonstrated in the specification of the 960 Patent." (1st Supplemental Brief, 26, n. 2).

We do not find NTP's approach helpful in explaining how the submitted evidence meets its burden of proving prior invention.

First, the pertinence of the portions of the '960 specification said to show a constructive reduction to practice is not apparent to us. There is no issue that has been raised in this appeal which implicates the constructive reduction to practice date of NTP's rejected claims. It is unnecessary, therefore, for us to decide whether or not the rejected subject matter was constructively reduced to practice on May 20, 1991.

With respect to the portions of the parenthetical to the left of the "/", said to show "the element or other support for conception and/or actual reduction to practice," NTP sends us on a "scavenger hunt." NTP does not directly identify and explain the evidence which would show the conception and/or reduction to practice of the particular claim element. Indeed, NTP

does not even separately address conception and actual reduction to practice. Rather it directs us to its proposed findings of fact, designated by "DF," which in turn directs us to its exhibits and/or other proposed facts. The exhibits often direct us to still other exhibits. We are left to sort through NTP's submissions to figure out the relevance of the documents and testimony.

For example, in the discussion of claim 1 and the limitation requiring that the originated information be transmitted by an RF information transmission network, NTP directs us to "e.g., Network, DF's 1-18, 35, 90." Those proposed facts direct us to look at numerous portions of Exhibit 1001, portions of NTP's Patent 5,436,960 and 9 additional patents and 9 additional applications said to be incorporated by reference into the '960 patent, portions of NTP's Patent 5,045,850 patent, NTP's Patent 4,870,410, and selected portions of Exhibit 1002. DF 35 additionally directs us to DF 61 which again directs us to portions of Exhibit 1001 and which in turn references the "Campana patents" and the Telefind E-mail Integration document (Ex. 1002). The referenced portions of Exhibit 1001 direct us to portions of the "Campana Patents," the "Telefind Patents" and other exhibits. How the referenced document supports the proposed finding of fact or the referenced claim limitation is not explained. Indeed, much of the material cited by NTP to support conception or actual reduction to practice with respect to particular claim limitations appears to us to have no relationship to prior invention of that limitation. For example, for the limitation in claim 1 relating to originated information, *i.e.*, e-mail, being transmitted by an RF information transmission network, NTP directs us to,

inter alia, DF 2. (1st Supplemental Brief, 26:14-15). DF 2 refers to 9 patents and 9 applications said to provide details on a network with wireless capability (1st Supplemental Brief, 2:13-17), but our review of those patents and applications indicates that they have no relationship to sending e-mail. Instead, they appear to relate to sending pager messages. The significance of those patents to proving the date of prior invention of a system or process for wirelessly transmitting e-mail is not explained.

Notwithstanding the lack of guidance from NTP, we have attempted to follow NTP's clues. We have reviewed the information said to show conception or actual reduction to practice of each limitation of each independent claim. Our review shows a failure to prove either prior conception or prior actual reduction to practice of systems or processes having all the claim limitations. In presenting its antedation case NTP has not separately argued conception and actual reduction to practice. Our analysis also treats them together.

We will focus our discussion on two limitations of the rejected subject matter: (1) the requirement that the whole or part of an e-mail be sent wirelessly and (2) the requirement that the electronic mail system transmit "other originated information" without using the RF information transmission network. Each of the independent claims, and by incorporation by reference, each of the dependent claims require both.¹¹

¹¹ See e.g., Claim 1 ("A system for transmitting information from one of a plurality of originating processors contained in an electronic mail system to at least one of a plurality of destination processors contained in an electronic mail system with the information including originated information originating from one of the plurality of originating processors and being transmitted by a RF information transmission network to at least one of the

II. Conception and actual reduction to practice of wirelessly sending e-mail

NTP's claims require sending e-mail wirelessly. Specifically, the claims are directed to a system and process requiring that originated information from an originating processor in an electronic mail system be transmitted by an RF information transmission network to a destination processor. For example, claim 1 requires:

A system for transmitting information from one of a plurality of originating processors contained in an electronic mail system to at least one of a plurality of destination processors contained in an electronic mail system with the information including originated information originating from one of the plurality of originating processors and being transmitted by a RF information transmission network to at least one of the plurality of destination processors and other originated information originating from one of the originating processors is transmitted with the electronic mail system without using the RF information transmission network to

at least one of the destination processors

As support for conception and actual reduction to practice an e-mail system and process including transmitting e-mail wirelessly, NTP refers us to proposed facts DFs 1-21, 23, 27, 28, 38-41, 44, 45, 47, 52, 58-63, 89, 90, and 99-101 *E.g.*, 1^{st} Supplemental Brief, 26:1-13 and 27:16 – 28:4.

plurality of destination processors and other originated information originating from one of the originating processors is transmitted with the electronic mail system without using the RF information transmission network to at least one of the destination processors") Appeal Brief filed December 21, 2006, p. 155.

The above-listed proposed facts refer us to specific portions of the following documents and testimony: (1) The Telefind E-Mail Integration Document (Ex. 1002) at p. 1, ¶¶ 1, 5 and 6, p. 2, ¶¶ 1, and 2, p. 3, ¶¶ 1, 2 and 3, pp. 4, 18 and 19; (2) Campana's Declaration (Ex. 1001), ¶¶ 4-6, 8-13, 15, 16, 29-31, 37 and portions of the table appearing on page 19; (3) Campana's trial testimony (Ex. 1043) at 145:18 – 146:7, 148:22 -149:17, 151:15-161:12, 152:6-156:8, 165:7-166:1, 167:12-25 and 175:21-25; (4) Campana's deposition testimony (Ex. 1034) at 176:10-177:23 and 210:25-211:7; (5) Patent 5,436,960, Figs. 2, 6, 10 and 11 and the description in the specification at 24: 41-47; (6) Patent 5,045,850, Fig. 7 and 13:32-40 (7) Patent 4,870,410, Fig. 2; (8) Ex. 1004; (9) Ex. 1007 and (10) portions of the deposition and trial testimony of Michael Ponschke (Exs. 1040 and 1045).

We discuss them below.

a. The Telefind Integration Document - Exhibit 1002

NTP's Exhibit 1002 is critical to NTP's case for antedation. (2nd Supplemental Brief, 12:1-6). Exhibit 1002 has been referred to in these proceedings as TEI or TEID, acronyms for Telefind E-mail Integration and Telefind E-mail Integration Document, respectively. The former is the title appearing on the first page of Exhibit 1002.

That document however, is not probative to establish that the inventors conceived or actually reduced to practice sending e-mail message wirelessly prior to the October 29, 1990, effective date of the references.

First we note the date of the exhibit. The first page of the exhibit lists three revisions, and a date corresponding to each. The revisions are designated 0, 1 and 2. Exhibit 1002 is Revision 2 and is dated April 9, 1991.

Exhibit 1002 includes four sections each beginning with its own title page. The sections are titled: (1) "'C' Version Driver Routine for Pager to Computer RS-232 Serial Interface" (2) "'Better Basic' Driver Routine for Pager to Computer RS-232 Serial Interface" (3) "Pager to Computer Serial RS-232 Interface" and (4) "AT&T E-Mail Entry Screen, Entry Methods, and Supportive Help Commands." Each section title page includes a list of revision dates. The final revision date on each section title page except the last is April 9, 1991. The final revision date on the title page of the last section, "(4)," is March 1, 1991. To the extent Exhibit 1002 is evidence of what was in the mind of the inventors, it can establish a date of conception no earlier than March 1, 1991, for the fourth section and no earlier than April 9, 1991, for the remainder of the document. Both dates are subsequent to the October 29, 1990, effective filing date of the Perkins, Hortensius and Harrison references.

Revision 0 of Exhibit 1002

Recognizing that Exhibit 1002 did not antedate the references, NTP attempts to rely on the Revision 0 date of October 6, 1990. The first page of Exhibit 1002 and each of the section title pages list a "Revision 0" date of October 6, 1990. That date is earlier than the effective date of the references.

NTP, however, has not provided a copy of Revision 0. Instead, NTP relies on inventor testimony and documents as evidence establishing the content of unproduced Revision 0. We have reviewed NTP's arguments and evidence. We hold that NTP has failed to prove the content of Revision 0.

We will assume, for the purpose of this opinion, that there was a Revision 0 in existence on October 6, 1990. However, Exhibit 1002 itself establishes that the content of the document was amended after that date. Exhibit 1002 does not identify what was removed or added during the revision process. Thus, Exhibit 1002 does not provide objective evidence of the content of Revision 0 on October 6, 1990.

NTP argues that the schematic circuit drawing of the RS-232 Port appearing at Page 16 of Exhibit 1002 confirms the content for Revision 0. NTP argues that the drawing "shows a creation date of October 23, 1990" showing that the inventors had earlier conceived the invention. (2nd Supplemental Brief, 13).

It is not apparent to us how a document dated October 23 establishes the content of another document on October 6.

In any event, the schematic as it may have appeared in Revision 0 is not part of the record. Indeed, the schematic in Exhibit 1002 raises more questions then it answers as to the content of Revision 0. The circuit drawing is part of the section of Exhibit 1002 having the title "Pager to Computer Serial RS-232 Interface." The section has but two pages, the title page (page 15) and the circuit drawing (page 16). NTP says the drawing was created on October 23, 1990. (2nd Supplemental Brief, 13:11-12). Consistent with that argument, the drawing includes the notation "10/23/90" in the lower right hand corner. However, the section title page lists a Revision 0 date of October 6, 1990. If the circuit drawing was created on October 23, 1990, as NTP says, what was the content of the Revision 0 version of the "RS-232 Interface" section on October 6, 1990? Additionally,

directly adjacent to "10/23/90" is a notation apparently indicating that the drawing was revised on March 29, 1991 ("REV #/ Date 01 3/29/91"). Thus, the October 23, 1990, version of the schematic is also not of record. Additionally the title page of the RS-232 section apparently indicates yet another revision on April 9, 1991. The schematic diagram section of Exhibit 1002 simply provides no basis for establishing the content of Revision 0 on October 6, 1990 or any date earlier than the April 9, 1991, revision date.

NTP argues that the Revision 0 document represented a complete wireless e-mail integration system. (2nd Supplemental Brief, 14). NTP says that the purpose of Revision 0 was to provide initial commercial documentation of wireless e-mail integration and that Revision 0 always represented functional, tested software ready for commercial availability. (2nd Supplemental Brief, 14:4-15).

We do not see how NTP characterization of what Revision 0 was intended to be establishes what was or was not disclosed in Revision 0 on October 6, 1990.

NTP directs us to a long list of exhibits said to establish the content of Revision 0 including the declaration of and trial testimony of one of the inventors Thomas Campana.

(1) Campana's Declaration - Exhibit 1001

Campana's declaration addresses the content of Revision 0. For the reasons detailed below, we do not credit his declaration. His declaration on the content of Revision 0 is inconsistent with essentially contemporaneous memos written by him. Additionally, Campana's recollections as to the content of Revision 0 are not credible in light of his strong interest in the

outcome of this reexamination and the fact that his declaration was made over twelve years after the date of Revision 0.

(a) Contemporary Documents

Campana testified that "from a complete review of documents" he concluded that he was the author of the Revision 0 document: "[T]he description of the system in [Exhibit 1002] which was revision 0 was written by me." Ex. 1001, ¶ 32. In his declaration (Ex. 1001) Campana's testifies that Exhibit 1002 included the "primary substance" of Revision 0. Ex. 1001, ¶ 35. He further testified that the document was only substantially changed in two respects. Ex. 1001, ¶ 32. The first change was said to be in response to a February 11, 1991, fax from AT&T relating to a commercial embodiment. Ex. 1001, ¶ 33. According to Campana, this change resulted in the March 1, 1991, Revision 1. *Id.* The second was the revision to the circuit diagram on March 29, 1991. Ex. 1001, ¶ 34. This change was said to be the basis of the April 9, 1991, revision. *Id.*

Revision 0 is dated October 6, 1990. From before that date and continuing for a substantial period after, Campana and Telefind were attempting to establish business relationships with AT&T and other companies involving wireless communications. Campana and other employees were involved in a number of meetings with these potential partners. A number of memos were written summarizing the meetings. Exhibits 1003, 1004, 1005, and 1009 are copies of memos written by Campana between August 16, and October 9, 1990. Exhibit 1007 is a memo written by A. Andros dated November 1, 1990. Each of these memos discusses meetings with AT&T. The detail in describing what transpired

during the meetings indicates that the developing a business relationship with AT&T was important. See especially Ex. 1007, p. 3 ("The Developing Telefind/AT&T Strategic Alliance").

What we find particularly noteworthy is that none mentions e-mail, the central focus of Exhibit 1002. Rather, they discuss messaging.

As we understand it, "messaging" is not the same as e-mail and NTP seems to distinguish the two. All of NTP's claims require sending e-mail to a destination processor through an RF information transmission network. Thus, wirelessly sending non-email messages to a destination processor without also wirelessly sending email does not appear to be part of the rejected subject matter. NTP notes that wirelessly sending non-email messages, such as stock quote information, to a pager or "paging receiver" is part of the prior art with respect to the claimed subject matter. For example, NTP says that "U.S. Patent No. 5,045,850 . . . reduced to practice before . . . the Campana Patents - describes non-email information being transmitted from a 'page source' . . .' through the Network to a 'paging receiver.'" (NTP 1st Supplemental Brief, 3:7-14). A paging receiver is a type of destination processor.¹² Thus, messages and e-mail are distinct as far as the rejected subject matter is concerned

As we noted above, the memos contemporaneous with the October 6, 1990 date of Revision 0 --those written between August 16 and November 1,

¹² The destination of the message is the paging receiver. Patent 5,045,850, *e.g.*, col. 4:40-44. Patent 5,045,850 says that the preferred paging receivers are described in a number of patents incorporated by reference including 4,857,915. Patent 5,045,850 col. 11:25-27. Figure 3 and corresponding text of the 915 patent at Col. 14:28-32, show that the paging receiver is a processor.

1990, do not mention e-mail. E-mail is not mentioned in any NTP document until a memo dated November 21, 1990, from Campana to Jack Richards. Exhibit 1006. After that date, discussion of wireless e-mail is significant in virtually all of NTP's documentary exhibits. See, Exs. 1002, 1008, 1011 – 1018, 1026, and 1030. Those documents cover the period November 21, 1990 to March 1, 1991.

In his declaration Campana says that he was the author of Revision 0 and that only two significant changes were made in preparing Revision 2 (Ex. 1002). Neither was identified as adding a reference to e-mail. Thus, Campana implicitly says that Revision 0, like Exhibit 1002, was directed to e-mail integration into the Telefind wireless paging system.

Exhibit 1002, as well as the other documents referenced above, show the importance of creating a business relationship with AT&T and the significance of wireless e-mail in creating that relationship. The reference to the AT&T e-mail entry screen and help commands in Exhibit 1002 (pp. 17-19), reflects this importance. In light of the importance of the development of a relationship with AT&T, the failure of these memos (Exs. 1003-1005, 1007 and 1009), written about the time Campana says he wrote Revision 0, to mention e-mail is inconsistent with his testimony on the content of Revision 0. See also Ex. 1007, p. 3, "The Developing Telefind/AT&T Strategic Alliance." Had Revision 0 included the reference to wireless email as implied by Campana's testimony, we think that wireless e-mail would have been a significant part of the discussions with AT&T and reflected in the memos authored about the same time, as it was in later memos.

(b) Campana's interest and the time of his declaration
 Campana's declaration on the content of Revision 0 is problematic for
 two additional reasons: (1) Campana's strong interest in the outcome of this
 reexamination and (2) the long period of time between the events to which
 he testifies and the date of his declaration and testimony.

Campana is an inventor. As a general proposition an inventor's testimony about the facts of conception and actual reduction to practice of their invention must be supported by more than the inventor's bare testimony. This is reflected in the requirement of § 1.131(b) that the inventor's declaration must include "[o]riginal exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence must be satisfactorily explained." It is also reflected in the requirement that proof of conception requires objective evidence of what the inventor has disclosed to others. *Jolley*, 308 F.3d at 1323.

Additionally, at the time of his declaration Campana was the Vice President and one of two board members of NTP. Ex. 1001, ¶ 1. NTP is a patent holding company whose principal assets include the patents involved in these reexaminations. The result of these proceeding may be cancellation of NTP's patent claims and loss of its assets. Thus, Campana had a significant interest in the outcome of the reexamination.

A witness' interest is relevant in determining the weight to be given declaration evidence submitted during ex parte patent examination. *Pargon Podiatry Lab., Inc. v. KLM Lab., Inc.*, 948 F.2d 1182, 1191, (Fed. Cir. 1993) (Holding inequitable conduct resulted from the failure to disclose to the

examiner that the declarants who testified supporting patentability had a significant financial stake in the assignee of the invention.); *Refac Int'l, Ltd. v. Lotus Development Corp.*, 81 F.3d 1576 (Fed. Cir. 1996) (holding that applicant committed inequitable conduct in withholding information on the inventor's significant prior connections with the affiants - the prior connection was considered material in deciding the weight to be given affidavits supporting the patentability of the claims).

Campana's interest in the outcome of the reexamination is particularly important given the length of time that has passed between the events and the testimony on those events. Campana's declaration (Ex. 1001) and trial testimony (Ex. 1043) were given over twelve years after the alleged dates of conception and actual reduction to practice. Because of the long period time, we think his recollections on what was done on specific dates and the content of Revision 0 are unreliable and of little probative value. The passage of a long period of time between the event and the testimony on the event may adversely effect the weight of the testimony. The Barbed Wire Patent, 143 U.S. 275, 289 (1892) (After a lapse of twenty-five years it is highly improbable that any witness who saw the barbed wire for a single day would be able to describe it accurately); Morgan v. Daniels, 153 U.S. 120, 127-129 (1894) (testimony on the existence of drawings showing conception of the invention more than eight years after the alleged creation of the drawings "is not of a character to carry great weight."); Woodland Trust v. Flowertree Nursery Inc., 148 F.3d 1368, 1369 (Fed. Cir. 1998) (The relationship of the witnesses and the fact that the events to which they testified occurred over twenty years ago were insufficient to prove prior use

of the invention); *In re Lippold*, 150 F.2d 714, 717 (CCPA 1945) (Affirming the decision of the Office declining to credit affidavit testimony submitted under Rule 75 (a predecessor to § 1.131) that many years before the witnesses observed a machine operated in a way and that was said to be constructed in accordance with the specifications of a certain application or patent.)

Because of his interest and the period of time between the Revision 0 date and the date of the declaration, we do not credit Campana's testimony.

NTP argues that under the correct legal standard, the Board is required to accept Campana's sworn testimony. (2nd Supplemental Brief, 3-5). In other words, according to NTP, the Board may not weigh the strength of the evidence presented but rather must simply accept all of its sworn testimony.

In making this argument NTP misconstrues the functions of this Board in reviewing adverse decisions of examiners on patentability. In evaluating examiners' decisions, this Board not only acts to review the correctness of the examiner's legal conclusions, but acts as trier of fact. As a trier of fact, the Board has broad discretion as to the weight to give to declarations offered in the course of prosecution. *In re Am. Acad. of Sci. Tech Ctr*, 367 F.3d at 1369. *See also, Velander v. Garner*, 348 F.3d 1359, 1371 (Fed. Cir. 2003) ("[A]ccord[ing] little weight to broad conclusory statements [in expert testimony before the Board] that it determined were unsupported by corroborating references [was] within the discretion of the trier of fact to give each item of evidence such weight as it feels appropriate."); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 294 (Fed. Cir. 1985) ("Opinion testimony rendered by experts

must be given consideration, and while not controlling, generally is entitled to some weight. Lack of factual support for expert opinion going to factual determinations, however, may render the testimony of little probative value in a validity determination." (citations omitted)). Contrary to NTP assertions, the Board is entitled to weigh the evidentiary value of the declarations, not merely accept, without question, the averments therein made.

Because of the inconsistencies between documents contemporaneous with Revision 0 and the content of Exhibit 1002, Campana's interest in the outcome of the proceeding and the twelve years between events and his testimony, we do not credit Campana's testimony as to the content of Revision 0.

(2) Other evidence on the content of Revision 0

NTP directs us to other correspondence said to "corroborate the Revision 0 of the TEI Document" (2nd Supplemental Brief, pp. 15-17):

NTP relies on various Campana correspondences between August 1990 and March 1991 (NTP Ex. 1001, 1002, 1004, 1005, 1009, 1012, 1022, 1015, 1016, 1017, 1018) all of which support conception of July 1990, and no later than October 6, 1990. "

 $(2^{nd}$ Supplemental Brief p. 15, l. 20 - p. 16, l. 3). For the most part NTP has not provided an explanation of how each of these references establishes the content of Revision 0.

We have reviewed the documents.

Exhibit 1001 is Campana's declaration which we do not credit. Exhibit 1002 is Revision 2 of the TEID which is subsequent to the date of the references.

All of the remaining documents except Exhibit 1022 relate to efforts to establish a business relationship with AT&T. We have discussed a number of them above. Exhibit 1022 is apparently the results of a patentability search.

Exhibits 1012, 1015-1018 and 1022 are dated between December 5, 1990, and March 13, 1991. We fail to see how they can establish the content of Revision 0 on October 6, 1990. As we noted above, Exs. 1003 – 1005, 1007 and 1009 do not mention sending email. It is after November 1, 1990, that the documents begin to mention e-mail. *Compare*, Ex. 1007 with Ex. 1006. In any event, they do not support NTP's argument that Revision 0 and Exhibit 1002 were substantially the same.

NTP also specifically directs us to the portion of Campana's declaration (Ex. 1001, ¶ 35) stating that he used Revision 0 to draft a letter dated November 21, 1990. (2^{nd} Supplemental Brief, p. 16, ll. 3-5). That letter is of record as Exhibit 1006. NTP's only proffered explanation of how the letter supports the content is that Revision 0 "was the only version of the TEI Document available in October-November 1990."

To the extent NTP is attempting to show that Exhibit 1006 and the other documents demonstrate that there was a Revision 0, on October 6, 1990, we again note that we have presumed that there was a Revision 0 on October 6, 1990. It is the content of the document on that date not its existence that is in question.

We noted Exhibit 1006 above and specifically addressed it in our previous decision. (Memorandum Opinion and Order, p. 22, ll. 3-16). We

there noted that NTP did not provide an explanation of what was in common between the letter and Exhibit 1002. We also noted the existence of certain common words and phrases but that the text was not the same. In its 2nd Supplemental Brief, NTP asserts that the letter supports the contents of Revision 0. Yet, our review of the content of Exs. 1002 and 1006 shows they are substantially different. NTP again provides no explanation of how the contents of the letter establishes the content of Revision 0.

We have again reviewed the letter without guidance from NTP and remain of the view that the content of Revision 0 can not be gleaned from the letter. The letter appears to be a summary report of meetings with various divisions of AT&T and the efforts to develop a business relationship with them. The letter also appears to relate to a wireless modem that could be attached to a laptop computer. The letter discloses little technical content relating to the rejected subject matter and actually appears to include substantially less technical content than Exhibit 1002. To the extent that NTP urges that the content of Revision 0 is revealed in the November 21, 1990, letter (Ex. 1006), the lack of technical content seems to suggest that substantial information was added by the revisions after the completion of the letter. Exhibit 1006 provides little that is useful in establishing the content of Revision 0.

NTP also relies on the patent application preparation process said to have begun in November 1990 along with the declaration Donald Stout to establish the content of Revision 0. (2nd Supplemental Brief, pp. 17-18 and 25). Specifically, NTP argues that Campana contacted his patent attorney Donald Stout in November 1990, described embodiments of the invention to

Stout, that Stout initiated a patentability search based on the November 1990 disclosures and prepared a patentability report dated December 4, 1990. NTP then argues that Revision 0 was the only version in existence at the time that the application process began and must have been the one used by Stout. (2nd Supplemental Brief, pp. 17-18).

NTP has not explained how any of the documents and testimony related to the preparation of Application 07/702,319 establish what was or was not described in Revision 0. Stout testifies that he believes Exhibit 1002^{13} was used as the disclosure document to prepare the applications. Ex. $1025, \P$ 4. However, Exhibit 1002 bears a "Revision 1" date of March 1, 1991 and a "Revision 2" date of April 9, 1991. Exhibit 1002 is Revision 2. Thus, Exhibit 1002 did not exist in November, 1990, when Stout began the application process. Assuming that Stout's testimony was that he believed he used Revision 0 as the disclosure document, he does not testify on the content of Revision 0.

The search results (Exhibit 1022) referred to in Stout's testimony shed little light on the content of Revision 0. To the extent the search results might reflect what Stout was searching, that search was apparently not based solely on Revision 0. It was apparently also based upon the additional embodiments described to Stout by Campana. (2nd Supplemental Brief, p. 17, ll. 17-18). Thus, the search results are of little value as indicating the

¹³ Stout's testimony refers to an "Exhibit 2". Stout's Exhibit 2 is a copy of the Telefind Email Integration Document. It was resubmitted as Exs. 1002 and 1027. Memorandum Opinion and Order, p. 11. The order for rebriefing on antedation required that the exhibits be sequentially renumbered. Order – Request for Further Briefing, mailed 6, 2008, p. 7.

content of Revision 0. In any event, how the search results might inform the content of revision 0 is not explained.

Lastly, with respect to the preparation of Application 07/702,319, we note that the disclosure of Application 07/702,319, filed on May 20, 1991, is very detailed in technical content – content apparently necessary to reduce the claimed subject matter practice without undue experimentation. The level of technical detail in the application, contrasts with the substantially less technical detail in Exhibit 1002 as of April 9, 1991. The level of technical detail in the application compared with that in Exhibit 1002 at least suggests that development of the subject matter had been ongoing and was in a state of flux up to the time that Application 07/702,319 was filed on May 20, 1991.

The documents and testimony on the preparation of the 07/702,319, application provides little insight as to the content of Revision 0.

NTP argues that certain demonstrations and alleged actual reductions to practice between August and November 1990 confirm the content of Revision 0. (2^{nd} Supplemental Brief, p. 18:, l. 15 – p. 23, l. 14). Specifically, NTP argues that the August and September 1990 demonstrations to AT&T, the October 24, 1990, Safari laptop demonstration and the November 1990 Comdex demonstration, support the content of Revision 0. (2^{nd} Supplemental Brief, p. 20, ll. 9-12; p. 22, ll. 5-9; p. 23, ll. 7-12). NTP directs us to a long list of Exhibits and argues that the content of the exhibits demonstrates what was detailed in Revision 0. (2^{nd} Supplemental Brief, p. 19, l. 7 – p. 20, l. 6). NTP's only explanation of how these purported demonstrations show the content of Revision 0 is that the

demonstration of a working wireless e-mail system proves that the system must have been conceived prior to the date of the demonstrations and therefore confirms the content of Revision 0. (2nd Supplemental Brief, p. 20, 11. 7-12). The exhibits are said to address implementations of technology embodied in Revision 0. (2nd Supplemental Brief, p. 19, 11. 7-16).

NTP has not explained how the exhibits demonstrate what technology was actually described in Revision 0. We have reviewed the referenced exhibits and fail to see how they establish the content of Revision 0. For the most part, the exhibits relate to development of a business relationship with AT&T and provide little detail on exactly what was demonstrated.

NTP specifically argues that the Safari laptop computer demonstration on October 26, 1990, and the Comdex show demonstrations on the Week of November 10, 1990, confirms the substance of Revision 0. (2nd Supplemental Brief, 20-22). However, whatever the system was that was demonstrated on October 26 and the week of November 10, 1990, it is not relevant to proving the content included in Revision 0 earlier on October 6, 1990. As we noted above, the development of NTP's electronic messaging system appeared to be an ongoing process right up to the time the grandparent application, was filed on May 20, 1991. In addition, the documents to which we have been directed fail to describe the details of the system that was actually demonstrated.

NTP also relies on the trial testimony of Murali Narayanan. (2^{nd} Supplemental Brief, pp. 23-24). NTP says that Narayanan's trial testimony (Exhibit 1044) corroborates Campana's testimony regarding the AT&T and Comdex demonstrations. (2^{nd} Supplemental Brief, p. 23, l. 176 – p. 24, l. 4).

NTP also directs us to a memo said to be authored by Narayanan dated November 29, 1990. (2^{nd} Supplemental Brief, p. 24, ll. 1 –4). The memo (Exhibit 1011) is said to confirm the existence of an operational prototype. Based upon the trial testimony and the memo, NTP argues that to demonstrate the system and its functionality must have been conceived prior to the time of the demonstrations. Therefore, according to NTP, the testimony and memo confirm the existence and substance of Revision 0 on October 6, 1990. (2^{nd} Supplemental Brief, p. 24, ll. 15-17).

As we noted above, we have assumed for the purpose of this opinion that a Revision 0 existed as of October 6, 1990. The testimony as to subsequent events and the later memo can not prove the content of Revision 0 as of October 6, 1990. Nonetheless, we have reviewed Narayanan's testimony (Exhibit 1044) and the Memo (Exhibit 1011). We fail to see how either the testimony or the memo inform the content of Revision 0 as of its issue date of October 6, 1990. And NTP has not explained how those exhibits prove that content. Narayanan's testimony, at best, establishes that wireless messages, as opposed to e-mail, were received by a laptop during the week of November 10, 1990. (Ex. 1044, 1265:12-14, 1266:8-9). This is after the October 6, 1990 date of Revision 0. Additionally, Narayanan's testimony provides no details as to the system and process demonstrated

Narayanan's memo also fails to provide any insight into the content of Revision 0. Indeed, it indicates that things were in a state of flux. He says that, Telefind "is building a gateway," that Narayanan will be providing the details for the gateway to Telefind and that he had "heard that an initial

prototype is now operational." (Ex. 1011, p. 1, \P 1). The date of the memo is November 29, 1990 long after the Revision 0 date of October 6, 1990. The memo simply provides no details from which the content of Revision 0 on October 6, 1990 can be determined.

NTP argues that the declaration of William White, supports NTP's position on the substance of Revision 0. (2nd Supplemental Brief, p. 26, ll. 11-17). We have reviewed Mr. White's declaration (Exhibit 1031). We do not see where Mr. White testifies on the content of Revision 0, or indeed on any version of the Telefind Email Integration Document (Exhibit 1002). Again we fail to see how this testimony sheds any light on the content of Revision 0.

NTP relies on the testimony of Michael Ponschke, another of the inventors, as corroborating "the email integration system description as it would have been available in Revision 0 of the TEI Document" (2nd Supplemental Brief, p. 28, 11. 2-5). Part of his testimony is of record as Exhibit 1040. We carefully reviewed the referenced portions and do not see any testimony on Revision 0 or the TEI Document. Nor do we see how his testimony provides any information on the content of Revision 0.

Thelen, another inventor, testified about Revision 0. NTP relies on his trial testimony (Exhibit 1039) as establishing the content of Revision 0. $(2^{nd}$ Supplemental Brief, p. 27, ll. 8-13). We have reviewed Exhibit 1039 and can not locate, and we have not been told, where he testifies on the content of Revision 0. He does testify on the meaning of the phrase "Revision 0," speculating that it "[p]robably [was] the first working version" and that he did not recall drafting anything else. (Ex. 1039, 84:13 – 84:18).

Thelen is listed as the author of the "Better Basic' Driver" section of Exhibit 1002. (Ex. 1002, p. 11). That section lists a Revision 0 date of October 6, 1990, and a Revision 1 date of April 9, 1991. Thelen does not explain what was added or deleted by the revision on April 9, 1991.

NTP also relies on Thelen's declaration (Exhibit 1047) submitted in response to our earlier opinion. $(2^{nd}$ Supplemental Brief, p. 31, l. 15 – p. 32, l. 5). Thelen testifies that he read Campana's reconstruction of the contents of Revision 0. He goes on to state his belief that the reconstruction was an accurate description of what they were working on in October 1990 and that by October 6, 1990, they had conceived the system described in pages 1-4 of Exhibit 1002 with two exceptions. (Ex. 1047, p. 4, ¶ 15).

Thelen's declaration is not enlightening on the content of Revision 0. Revision 0 is not part of the record on appeal. The only "TEI Document" of record is not Revision 0. It is Exhibit 1002 which is the later Revision 2. Thelen does not say that he had any recollection of the content of Revision 0. And while he says Exhibit 1002 describes what they were "working on" by October 1990, his general recollections of what they were "working on" some eighteen years later, do not reliably establish what was actually described in Revision 0. Thelen's referenced testimony does not credibly establish the content of Revision 0 on October 6, 1990.

NTP, in a number of places in the 2nd Supplemental Brief mischaracterizes our position on the evidence relating to the date attributable to Exhibit 1002. NTP asserts that we found that there was "no evidence to attribute the earlier October 6, 1990, date to the description of the email integration system of the TEI Document." (E.g. 2nd Supplemental Brief, p.

32:, ll. 9-12). NTP also says that our decision was "based on a premise that NTP has no physical evidence that is dated prior to October 29, 1990, that corroborates the content of the TEI document" (2^{nd} Supplemental Brief, p. 40:, l. 1-3).

We did not hold that there was "no evidence" or no "physical evidence." We evaluated and weighed the evidence presented relating to the content of Revision 0 and found that evidence insufficient to establish its content. See Mem.Op and Order, p. 19, 1. 18 - p. 23, 1. 13. We said:

[T]he precise content of Revision 0 is critical for establishing conception. We will decline in view of the facts of these cases to credit 12-year old testimony about the content of a document which is over 12 years old. In declining to credit the Campana testimony we have not overlooked the Campana testimony that the "substance of the [Revision. 0] document is confirmed by several different and independent indicia."

(Mem. Op. and Order, p. 20, l. 27 - p. 21, l. 6). We then discussed those other indicia including documents dated between July and October 6, 1990. (Mem. Op. and Order, p. 21, l. 7 - p. 22, l. 16; p. 23, ll. 11-13). Thus, we neither held that there was "no evidence" nor based the decision on a premise that NTP presented no physical evidence dated prior to October 29, 1990. And NTP has not identified where in the record we did so. Our decision on the date attributable to Exhibit 1002 is not the result of NTP providing no evidence. Rather, NTP's submitted evidence is insufficient to credibly prove the content of Revision 0 as of October 6, 1990.

NTP has failed to prove the content of Revision 0 as of October 6, 1990. Exhibit 1002, which is dated April 9, 1991, can not establish conception or actual reduction to practice prior to that date.

b. Campana's Declaration and Trial and Deposition Testimony – Exhibits 1001, 1034 and 1043

We have also reviewed the referenced portions of Campana's declaration and trial testimony relating to conception and actual reduction to practice of wireless e-mail. (E.g., 1^{st} Supplemental Brief, p. 26, ll. 1-13 and p. 27, l. 16 – p. 28, l. 4 (relating to claim 1) referring to DF's 1-21, 23, 27, 28, 38-41, 44, 45, 47, 52, 58-63, 89, 90, and 99-101). We do not credit Campana's testimony as to the dates when various events occurred because of the apparent inconsistency of his testimony with contemporaneous documents he authored, his interest in the outcome of the reexamination, and the length of time between the events and his declaration and testimony on those events. We explained in detail his interest and the amount of time which has lapsed above in discussing Revision 0.

c. Patent 5,436,960

NTP also relies on certain portions of its Patent 5,436,960 ('960 patent), including Figures 2, 6, 10 and 11 and the specification at 24:41-47 to prove conception or actual reduction to practice

The '960 patent issued from Application 07/702,939, filed May 20, 1991. That application is the first in a chain of applications filed by NTP or its predecessors relating to RF transmission of e-mail.

The effective date of the '960 patent is May 20, 1991. Its disclosure is evidence of conception and constructive reduction to practice of what is disclosed therein no earlier than that date. Thus, the patent is simply not relevant to proving what was in the inventors mind or what was actually reduced to practice prior to the October 29, 1990, effective date of the references.

d. Patents 5,045,850 and 4,870,410

NTP also relies on Patents 5,045,850 and 4,870,410. The disclosures of those patents are said to be incorporated by reference in the disclosures of the Campana patents and are apparently prior art as to the claimed subject matter. (1st Supplemental Brief, p. 3, ¶ 6; p. 4, ¶ 10; p. 11, ¶ 44). Both patents appear to describe wirelessly sending non-email messages where the destination processor is a pager device rather than a computer. (See 1^{st} Supplemental Brief, p. 3, ¶ 6).

Since neither relates to sending e-mail, we fail to see how they demonstrate conception or actual reduction to practice of wirelessly sending e-mail prior to October 29, 1990. In any event, to the extent the patents have relevance with respect to the rejected subject matter, i.e., wireless e-mail, they only provide evidence of conception and constructive reduction to practice of the subject matter of the rejected claims as of the effective filing date of the application into which they were incorporated, May 20, 1990.

e. Andy Andros Memo of November 1, 1990 – Exhibit 1007

Exhibit 1007 is a memo describing a meeting with the AT&T portable Computer Group on October 26, 1990. It is dated November 1st 1990. We discussed the memo above. The focus of the meeting was apparently to demonstrate the use of Telefind's Messager paging device as a wireless modem. Specifically, it states:

> The purpose of the meeting (at their request) was to demonstrate the Telefind Messager (pager) for use as a wireless modern to download data and messages into the AT&T portable computer. The interface was developed by ESA-Chicago using the Telefind technology at the request of Mr. Murali Narayanan of Bell Labs.

(Ex. 1007, p. 1). The memo does not mention that downloading e-mail to the AT& T computer was demonstrated.

f. Michael Ponschke's deposition and trial testimony - Exhibits 1040 and 1045

Exhibits 1040 and 1045 are the deposition and trial testimony of one of the inventor's, Michael Ponschke. At his deposition, Ponschke testified about attending the meeting in New Jersey on October 26, 1990, apparently discussed in the Andros memo, Exhibit 1007. He testified that Telefind's "paging device" was demonstrated and that e-mail messages were sent through the devices displayed on a laptop computer. (Ex. 1040, 98:2-16, 101:11-22). However, later, at trial, he clarified that he misspoke about sending e-mail. What was demonstrated was messaging, not e-mail:

Let me clarify or explain that, what I said on that tape, I apparently misspoke, that we did not demonstrate e-mail. We demonstrated messaging. Like I said, everything was happening so fast that at one time we did have e-mail, but after reviewing documents and dates and memos that I wrote myself, that we could not have demonstrated email.

(Ex. 1045, 1404:20 – 1405:1). His testimony is consistent with Campana's memos and other documents dated between August 16 and November 19, 1990, all of which discuss messaging, not e-mail.

g. The August, September and October demonstrations

In addition to the facts and evidence related to wirelessly transmitting e-mail that NTP referred to in its element-by-element analysis, we have also considered the evidence related to the alleged demonstrations in July – October, 1990. (2^{nd} Supplemental Brief, pp. 18-22). The evidence to which

we were directed does not establish that e-mail was wirelessly sent during those demonstrations.

NTP directs us to the following exhibits: specific portions of Campana's declaration (Ex. 1001); Ex. 1003 at 1-2; Ex. 1004 at 2-3; Ex. 1005 at 2; Ex. 1006 at 1; Ex. 1007 at 1-2; Ex. 1009; Ex. 1024; Ex. 1034 at 176:10-177:23, 210:25-211:7; Ex. 1040 at 97:19-98:19, 99:7-102:9, 103:5-104:7; specific portions of Campana's Trial Testimony (Ex. 1043); Ex. 1044 at 1266:21-24 and Ex. 1045 at 1314:5 – 1315:16 and 1403:12- 1405:14. (2nd Supplemental Brief, pp. 18-22).

Exhibits 1001 and 1043 are Campana's declaration and Trial testimony which we do not credit.

Exhibits 1003-1005, 1007 and 1009 are memos dated between August 16, 1990 and November 1, 1990. We discussed these above with respect to the content of Revision 0. As we there noted, they do not refer to sending e-mail, rather they relate to sending paging messages to a wirelessly modem.

Exhibits 1003-1005, 1007 and 1009 are essentially contemporaneous with the demonstrations said to have occurred in August to October, 1990. Yet wirelessly sending e-mail is simply not mentioned. These memos do not establish that e-mail messages were sent during the demonstrations.

Exhibit 1024 an undated document that appears to be a Telefind brochure for a wireless modem. It does not provide any information about the wireless modem. It list a number of computer manufacturers "who are in the process of adopting the Telefind Messaging System." However, it does not mention e-mail and appears to be directed to sending messages.

We discussed Exhibit 1006 above. It is the earliest documentary evidence that mentions wireless e-mail. It is a memo from Campana to Jack Richards dated November 21, 1990, after the effective date of the references. To the extent it provides evidence of conception or actual reduction to practice of sending wireless e-mail, it establishes a date no earlier than November 21, 1990.

Exhibit 1034 is a portion of Campana's deposition testimony from the *NTP v. RIM* litigation. Exhibits 1040 and 1045 are portions of the deposition and trial testimony of inventor Ponschke from that litigation.

We do not credit Campana's testimony for the reasons we have stated above. However, it is noteworthy that in testifying about the October 26, 1990 demonstration, Campana was not asked about sending e-mail. He was asked about pager messages:

> Do you recall a meeting in New Jersey on October 26, 1990 of which the Telefind pager was used to download messages into an AT&T portable computer?

(Ex. 1034, 176:10-13). He answered:

I believe that was the date that it was demonstrated to AT&T in New Jersey.

(Ex. 1034, 176:15-16). Thus, this portion of his deposition does not support NTP's position that wireless e-mail, rather than messaging, was demonstrated on that date. The other referenced portion of his deposition was directed to the interface between the AT&T mail system and the Telefind system. While he said he believed the interface was working in early October (of 1990), he did not say it was actually used to send e-mail rather than non-email pager messages. At best, Campana's deposition

testimony, to the extent it can be credited, is ambiguous about sending wireless e-mail at the October 26, 1990 demonstration.

We discussed Ponschke's testimony, Exs. 1040 and 1045, above. It relates to the October 26, 1990, demonstration. He testified that wireless transmission of messages rather than e-mail was demonstrated. (Ex. 1045, 1404:20 - 1405:1). His testimony is consistent with Campana's memos and other documentary evidence dated between August 16 and November 19, 1990, all of which discuss messaging, not e-mail.

We have also reviewed Thelen's declaration (Ex. 1047) submitted in response to our earlier opinion. Thelen is a named inventor. At the time he of his declaration he was a paid consultant "regarding any legal matters which NTP may be involved." (Ex. 1047, ¶¶ 4-5). He says that between 1990 and 1991 he was working on wirelessly transmitting e-mail originated from a processor having an e-mail application to a destination computer. (Ex. 1047, ¶ 9). He was responsible for developing software to interface Telefind's paging device with a computer. (Ex. 1047, ¶ 11). He testifies that he, Campana and Ponschke conceived of a system for transmitting email over a wireless network to a pager and extracting the e-mail from the pager to a computer. (Ex. 1047, ¶ 34). He says that no later than October 6, 1990, they

> had an operational extraction program which was executed on a destination processor as identified in Fig. 10 of our Patents for extracting the email from memory of the Telefind Messager pager. The email was sent from an originating processor in an email system, such as shown in Fig. 8 of the Patents through an interface switch 204 to the Telefind Network and then to the Telefind

> Messager from which pager an email was extracted into the destination processor such as the AT&T Safari prototype laptop.

(Ex. 1047, ¶ 35). To support his declaration, he relies on data from diskettes said to be backups of software related to the development of the BetterBasic driver for the pager to computer interface. (Ex. 1047, ¶¶ 16-33). Some of files on the diskettes are said to be dated before the date of the references on October 5, 8, and 12, 1990. Another is dated November 14, 1990. (Ex. 1047, ¶ 33). He goes on to testify that the work he did during that time period was for a Telefind messager pager operating in the Telefind network and connected to a laptop computer. (Ex. 1047, ¶ 40). He further testifies that, without specifying a date, that an e-mail was originated by a computer in the AT&T mail system, sent through an interface switch into Telefind's wireless network, delivered to a Telefind pager and the software extracted the e-mail into the laptop. He says that the

pager received email that originated at the AT&T email system by someone at ESA using a modem to call the AT&T brand 3B2 computer which was located at Telefind's Coral Gables Florida headquarters to originate an email, as illustrated in Fig. 8 of the Patents. The email was then transmitted through an interface switch 302 also located at Coral Gables to a switch of the Telefind Network and ultimately delivered by the Telefind Network to the Telefind Messager, at which point both my or Michael Ponschke's software (running on the prototype Safari laptop computer) would extract email from the Messager through the Messager serial port (such as on page 15 of the Telefind E-Mail Integration) and into the prototype AT&T Safari laptop that AT&T had provided to ESA. The email application software resident

> on the AT&T prototype Safari laptop computer displayed the email message on the screen as part of an AT&T email format.

(Ex. 1047, ¶ 41).

Thelen also testifies about another program file on the diskettes said to be dated October 23, 1990, apparently written in preparation for the October 26, demonstration to AT&T in New Jersey. The program is said to display that a message has been received by the pager attached to a laptop computer. (Ex. 1047, ¶ 59. II. 18-20). According to Thelen, this program showed that the integration of the AT&T e-mail system with the Telefind wireless network had been completed. (Ex. 1047, ¶ 60). Thelen concludes his testimony stating that prior to October 23, 1990, he had witnessed the successful operation of the invention to deliver wireless e-mail which originated in the AT&T e-mail system. (Ex. 1047, ¶ 61).

We do not credit Thelen's testimony relating to the specific dates in which the events are said to have occurred. Thelen is an inventor and, at the time of his declaration, was a paid consultant for NTP "regarding any legal matters which NTP may be involved." He thus has a significant interest in the outcome of this interference. Additionally, his declaration is dated April, 2009, more than eighteen years after the events on which he testifies. We do not consider his recollections reliable.

Additionally, Thelen's testimony on sending email appears to be contradicted by Ponschke who testified that they demonstrated messaging rather than e-mail in October, 1990. To the extent Thelen's testimony and Ponschke's are inconsistent, we credit Ponschke's because it is consistent with the memos written between August 16 and November 1, 1990, which

discuss messaging rather than e-mail. (See Exs. 1003-1005, 1007 and 1009). Indeed, Thelen does not testify that the software was designed for sending email rather than non-email pager messages.

NTP's § 1.131 submissions fail to establish that the inventors conceived or actually reduced to practice a system or process, including wirelessly sending e-mail prior to the effective date the references.

III. Conception and actual reduction to practice of sending some originated information without using RF transmission

In addition to transmitting e-mail wirelessly, all of NTP's claims require that the some of the originating information be transmitted without being transmitted through the RF system. For example, claim 1 requires that

other originated information originating from one of the originating processors is transmitted with the electronic mail system without using the RF information transmission network to at least one of the destination processors

To prove conception and actual reduction to practice, NTP relies on "e.g., the AT&T Processor allowed senders and recipients . . . to send and receive email by wireline" (1st Supplemental Brief, p. 26, 15-p. 27, 2). 3. We are directed to proposed facts DFs 42 and 92 as support the assertion. (1st Supplemental Brief, p. 27, 1.-2). Virtually identical references are made with respect to each of the other independent claims.

DFs 42 and 92 refer us to specific portions of the following documents and testimony: (1) Campana's Declaration, Ex. 1001, p. 5 ¶ 11 and (2) The Telefind Integration Document, Ex. 1002 at p., 3 ¶ 1.

Exhibit 1001 is Campana's declaration. We do not credit his declaration for the reasons we have detailed above.

As we also explained above, the Telefind Email Integration document (Ex. 1002) is dated after the effective date of the references. It is not evidence of what was conceived or reduced to practice prior to the date of the Perkins, Hortensius and Harrison references.

In any event, we have reviewed the referenced portions of the documents. The referenced portion of Campana's declaration relates to "terrestrial" e-mail systems and problems linking those systems using the X400 protocol. However, we fail to see any reference to sending some of the originating information only by a "terrestrial," *i.e.*, non-RF, link. The referenced portion of Exhibit 1002 discusses the benefits of using a wireless link in an e-mail system. It makes no reference to sending some e-mail only by wireline.

We have also reviewed Thelen's declaration (Ex. 1047) for the light it might shed on sending some of the originating information without using the RF transmission system. We were unable to find anything that tends to establish when that aspect of the rejected subject matter was part of the conception or actual reduction to practice.

NTP has failed to establish conception and actual reduction to practice of a system or a process wherein the e-mail system transmits other originated information to a destination processor in the electronic mail system through a wireline without transmission using the RF information transmission network.

5. Additional points raised by NTP

I. Stout Declaration – Exhibit 1064

As part of its submissions in response to our decision entered February 18, 2009, NTP submitted a document titled "Declaration of Donald Stout as President of Patent Owner under 37 C.F.R. § 1.131 Regarding Further Conception and Reduction To Practice Evidence" (Ex. 1064).

We decline to consider the substance of this document. A review of the document shows that, for the most part, it is a duplication of NTP's 1st Supplemental Brief updated to refer to the 2nd Thelen declaration (Ex. 1047). It repeats, essentially verbatim, the proposed fact findings found at pp. 2-25 and the element-by-element analysis found at pp. 25-48 of the 1st Supplemental Brief. Thus, Exhibit 1064 is actually an unauthorized additional brief.

The purpose of a § 1.131 declaration is to present a "showing of facts . . . to establish reduction to practice . . . or conception of the invention prior to the effective date of the reference" 37 CFR § 1.131(b). Stouts affirmation that statements made of his own knowledge are true, and all statements made on information and belief are believed to be true on the final page of Exhibit 1064 does not convert the suggested fact findings, fact interpretations and the arguments in the 1st Supplemental Brief into factual testimony. His "testimony" is predominately surmise, conjecture, inference and opinion. While arguably appropriate as part of a brief explaining how a collection of asserted facts supports granting the requested relief by the tribunal, it is inappropriate as a "showing of facts . . . to establish reduction to practice

... or conception of the invention prior to the effective date of the reference ... " as required by § 1.131. We decline to consider it.

Even if we considered the declaration, it would be entitled to little, if any weight. It appears that Stout has no personal knowledge of facts related to alleged conception and actual reduction to practice prior to the October 29, 1990, date of the references. Stout's 1st Declaration (Ex. 1025) does not describe any events that occurred prior to October 29, 1990. He also does not attest to involvement in preparing the applications that became the patents undergoing reexamination prior to November 1990 (Ex. 1025, p. 2, ¶ 4). Thus Stout does not appear to be in a position to provide factual testimony relating to conception and actual reduction to practice prior to October 29, 1990.

Additionally, to the extent that Stout, as a patent attorney (Ex. 1025, p. 2, \P 3), attempts to give opinion testimony as a patent law expert on the legal conclusions of conception and actual reduction to practice, we are not required to give any weight to his opinions on legal issues *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1025 (Fed. Cir. 1985). Stout's legal opinions fall far short of providing a "showing of facts" sufficient to prove conception or actual reduction to practice of the "of the subject matter of the rejected claim[s]."

Further, Stout is hardly a disinterested witness. His declaration (Ex. 1064) notes at the time the declaration was submitted that he was the president of NTP. (Ex. 1065, p. 2, ll. 2-4). He and his immediate family, collectively, are apparently NTP's largest stockholders. (Ex. 1025, p. 1, \P 1). We understand that NTP is a patent holding company and that the

patents undergoing reexamination are substantial assets of that company. Due to Stout's very strong interest in the outcome of the reexamination proceedings, we would not credit his testimony.

II. NTP's Terminology Mappings

As it did in its 1st Supplemental Brief, NTP refers to what it calls the "Terminology Mappings" found in Campana's declaration. (2nd Supplemental Brief, pp. 29-31). NTP says this table was an attempt to correlate "terminology used in the patent claims with terminology used in the TEI document" (2nd Supplemental Brief, pp. 29-30).

NTP's "correlation" is simply not relevant or helpful. NTP's burden in making out its § 1.131 case is "to establish invention of the <u>subject matter</u> <u>of the rejected claim</u> prior to the effective date of the reference" 37 C.F.R. § 1.131 (emphasis added). The table correlating language of its disclosure with certain selected language from Exhibit 1002 does not establish that the subject matter of the rejected claims is present in Exhibit 1002. The rejected claims are directed to systems and processes having specific components and steps that must be interconnected or interrelated in the manner required by the claims. As we noted in our earlier opinion,

> [i]t is . . . not helpful that the Telefind Integration Document may use some of the same terms as those used in NTP's patent disclosure. It is the functions performed by each and the interactions and co-operations between components that are important, not just whether some of the same terms are used in both documents.

(Mem. Op. p. 24, l. 25 – p. 25, l. 2).

The claims require functions and interactions not identified in the table. Thus, for example, claim 1 requires that the system transmits other originated information from an originating processor to destination processors in the electronic mail system without transmission using the RF information transmission network. The table does not mention this limitation. Nor are we able to find a description of it in Exhibit 1002.

6. Conclusion

We have reviewed NTP's arguments and its voluminous evidence. The evidence does not establish, by a preponderance of the evidence, that the inventors conceived or actually reduced to practice a system and process including (1) sending e-mail wirelessly or (2) transmitting other originated information without using the RF information transmission network. Both elements are required by the rejected claims.

Nor has NTP established that any difference between the rejected subject matter and that shown in its evidence is such that the subject matter of each rejected claim would have been obvious.

NTP has failed to demonstrate prior invention of the subject matter of the rejected claims.

 J. Rejection of claims 555-562, 573, 577-580, 595, 597, and 598 for lack of enabling disclosure under 35 U.S.C. § 112, first paragraph

We reverse.

The test for passing the enabling disclosure requirement under 35 U.S.C. § 112, first paragraph, is whether one reasonably skilled in the art could make or use the claimed invention from the disclosed subject matter together with information in the art without undue experimentation. *U.S. v.*

Telectronics, Inc., 857 F.2d 778, 785 (Fed. Cir. 1988). A disclosure can be enabling even though some experimentation is necessary. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986). The issue is whether the amount of required experimentation is undue. *In re Vaeck*, 947 F.2d 488, 495 (Fed. Cir. 1991); *In re Angstadt*, 537 F.2d 498, 504 (CCPA 1976). The factors suitable for consideration in making the enablement determination include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. *See In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

The Examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. *In re Wright*, 999 F.2d 1557, 1561-1562 (Fed. Cir. 1993).

According to the Examiner, under the principle of claim differentiation, claim 555 requires an affirmative limitation of requiring the originating processor to communicate with a RF receiver "without" using an interface. (Answer 70:22-23).

The doctrine of claim differentiation sets forth the general principle that if a dependent claim specifically recites a certain limitation, then the claim from which it depends does not have that requirement. The principle is not absolute and without exception. It can be the case that the feature is already implied or inherent in the parent claim and merely explicitly recited in the dependent claim.

The Examiner noted that claim 556, which depends from claim 555, recites: "wherein said further information is transmitted to the one of the destination processors via the at least one interface." The Examiner then reasoned that under the doctrine of claim differentiation, parent claim 555 includes a limitation requiring that the further information is transmitted to the destination processors "without using an interface." (Answer 70:22-23).

The reasoning is misplaced, because claim 555 need only be sufficiently broad in its scope to include the case in which the further information is transmitted to the destination processor through the RF information transmission network without use of an interface. An affirmative claim feature of transmitting the information through the RF information transmission network without use of an interface is simply not present in claim 555, even with the application of the doctrine of claim differentiation.

Nevertheless, the Examiner is correct that the specification still has to enable the full scope of what has been claimed, including the case of transmitting the information without use of an interface. In that regard, however, the Examiner has not adequately explained why it would require undue experimentation for one with ordinary skill in the art to send further information to the destination processors through the RF information transmission network without using an interface which connects to the RF information transmission network. Nothing about the already existing interface needs to be dismantled. The Examiner has not explained why one with ordinary skill in the art could not add a direct link between an additional processor and the RF information transmission network, for

sending the further information which according to claim 555 is not electronic mail, or why such a task would require undue experimentation.

The Examiner's concern is with breaking the disclosed transmission network by removing all interface units. In that regard, the Examiner stated (Answer 73:15-20):

Indeed, removing a critical component such as an interface switch from the Campana network would have immediately broken the network. Similarly, the gateway switch was taught as being bypassed when "other information" was transmitted to the destination processor. Therefore, adding the ability to [process] information other than email to a gateway switch without breaking the current network configuration would have been a significant endeavor. (Emphasis added).

As explained above, the Examiner's position that the interface components would have to be removed from any implementation of the invention of claim 555 is incorrect. One with ordinary skill in the art need only implement the sending of the further information from an additional processor to the RF information transmission network without use of an interface, and not the sending of all information to the RF information transmission network without an interface. Also, the Examiner incorrectly assumed that the specifically disclosed configuration in NTP's specification cannot be broken and modified by one with ordinary skill in the art. The disclosed configuration is merely a starting point for one with ordinary skill in the art, who can perform all modifications necessary by ordinary skill in the art and within the scope of routine experimentation.

The rejection of claim 555 cannot be sustained.

Claim 556 seems to have been rejected solely because it depends from claim 555. Because the rejection of claim 555 cannot be sustained, neither can the rejection of claim 556.

The rejection of claim 556 cannot be sustained.

The examiner's basis for rejecting claims 557-562, 573, 577-580, 595, 597, and 598, is uncertain and unexplained. None of them depends from claim 555 and none of them is involved in the Examiner's application of the doctrine of claim differentiation based on claims 555 and 556.

On this record, the rejection of claims 557-562, 573, 577-580, 595, 597, and 598 is without merit. The examiner has failed to articulate a reasonable rationale as to why it would require undue experimentation for one with ordinary skill in the art to make and use the claimed invention.

For the foregoing reasons, the rejection of claims 557-562, 573, 577-580, 595, 597 and 598 under 35 U.S.C. § 112, first paragraph, for lack of enabling disclosure also cannot be sustained.

K. Rejection of claims 555-562, 577-580, 597, and 598 under 35 U.S.C. § 305 for improper broadening

The Examiner finally rejected claims 555-562, 577-580, 597, and 598 under 35 U.S.C. § 305 as violating the prohibition against enlargement of the scope of a patent claim in a reexamination proceeding.

We reverse.

Issue

Has NTP shown that the Examiner erred in determining that claims 555-562, 577-580, 597, and 598 enlarge the scope of an original issued claim of the NTP '670 patent?

Principles of Law

"No proposed amended or new claim enlarging the scope of a claim of the patent will be permitted in a reexamination proceeding under this chapter." 35 U.S.C. § 305.

A claim that is broader in any respect is broader even though it may be narrower in other respects. *In re Bennett*, 766 F.2d 524, 525-526 (Fed. Cir. 1985); *Ball Corp. v. United States*, 729 F.2d 1429, 1438 (Fed. Cir. 1984).

Analysis

According to the Examiner, new claim 555 presents a feature of communication with an RF receiver without using an interface or is broad enough to include sending information through the RF network without using an interface. (Answer 70:17-18; 74:6-7). Thus, the Examiner's reasoning appears to be that because all original patent claims require communication through the RF network to be via an interface, new claim 55 is broader. However, the Examiner's position is misplaced.

As we have already explained above, claim 555 includes no limitation which requires the transmission of any information without an interface. But it is broad enough to cover the transmission of that further other information which is not electronic mail to the destination processor using the RF information transmission network without regard to whether an interface is used to connect to the RF network.

The Examiner's position is misplaced because claim 555 depends on original patent claim 8 which depends on original patent claim 1, neither of

which includes any limitation concerning the transmission of further other information which is not electronic mail to anywhere.

"Further other information" is first introduced in claim 555 itself. Per claim 1, originated information is transmitted to the interface, but claim 1 states nothing about transmission of "further other information" which is not electronic mail and first introduced in claim 555. The same is true with original patent claim 8. Consequently, with regard to transmission of the further other information that is not electronic mail, original patent claims 1 and 8 are each broader than new claim 555. The Examiner's analysis did not focus on the proper information, *i.e.*, the further other information that is not electronic mail and which comes from a processor not in the electronic mail system. The absence of any limitation in original patent claims 1 and 8 on the subject means those claims are broader than claim 555 which first introduces that further other information and a feature of transmitting that further other information. With respect to claim 556, it appears that claim 556 was rejected only because of its dependency on claim 555. Moreover, claim 556 specifically requires the use of an interface for transmitting the further other information to the destination processors.

The rejection of claims 555 and 556 cannot be sustained.

With regard to claims 557-562, 577-580, 597, and 598, the Examiner indicates that (1) while original patent claims recited only deletion of information from headers, new claim 557 recites deletion of information from electronic mail; and (2) that while original patent claims recite adding and deleting of information to the header and encoding electronic mail, new claims 577 and 597 recite varying the content of electronic mail. The

Examiner notes that deleting information from electronic mail is broader than deleting information specifically from a header, and that varying the content of electronic mail is broader than adding or deleting information from the mail header and encoding electronic mail (Answer 74:11-15).

In the statement of rejection on page 74 of the Answer, the Examiner did not identify which specific original patent claim was being compared with the rejected claims. There lies the problem.

While it is true that a proposed amended or new reexamination claim is broader than an original patent claim if it is broader in any respect, notwithstanding that it may be narrower in other ways, the premise for that principle is that the comparison must be made with the closest original patent claim, not just any original patent claim. If the comparison can be made with any original patent claim, then a proper proposed amended or new reexamination claim must include every single feature of every single original patent claim. That is because if not every feature of every original patent claim is included, then there is always an original patent claim which includes a feature that is absent in the proposed amended or new claim. We do not interpret 35 U.S.C. § 305 as requiring each proposed amended or new reexamination claim to include every feature of every original patent claim.

New claims 557-562, 577-580, 597, and 598 ultimately depend from original patent claim 8 which depends from original patent claim 1. We have reviewed both patent claims 1 and 8. Neither recites adding or deleting information from a header, or encoding of electronic mail by the interface.

Also, per 35 U.S.C. § 112, fourth paragraph, a claim in dependent form shall be construed to incorporate by reference all the limitations of the

claim to which it refers. By definition, because they all ultimately refer to original patent claim 8, new claims 557-562, 577-580, 597, and 598 include each and every feature of claim 8, unless there is some recitation in the new claims which clearly removes the feature. No such removal is apparent from these claims and the Examiner has not pointed to any such broadening from original patent claims 1 and 8. Accordingly, the Examiner has not established that new claims 557-562, 577-580, 597, and 598 are broader than the original patent claims on which they depend.

For the foregoing reasons, the rejection of claims 555-562, 577-580, 597, and 598 under 35 U.S.C. § 305 cannot be sustained.

Conclusion

NTP has shown that the Examiner erred in determining that claims 555-562, 577-580, 597, and 598 improperly enlarge the scope of an original issued claim of the NTP '670 patent.

L. Rejection of claims 555-562, 573, 577-580, 595, 597, and 598 under 35 U.S.C. § 112 first paragraph for lack of written description in the specification

The Examiner finally rejected claims 555-562, 573, 577-580, 595,

597, and 598 under 35 U.S.C. § 112, first paragraph, for lack of written description.

We affirm-in-part.

The rejection of claims 556, 573, and 595 is reversed.

The rejection of claims 555, 557-562, 577-580, 597, and 598 is

affirmed.

Principles of Law

To satisfy the written description requirement under 35 U.S.C. § 112,

first paragraph, the specification must convey with reasonable clarity to those skilled in the art that as of the filing date of the application the inventor was in possession of the claimed invention. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed.Cir. 1991); *Ralston Purina Co. v. Far-Mar-Co.*, 772 F.2d 1570, 1575 (Fed. Cir. 1985); *see also Pandrol USA, LP v. Airboss Ry. Products, Inc.*, 424 F.3d 1161, 1165 (Fed. Cir. 2005). A disclosure that merely renders the later-claimed invention obvious is not sufficient. *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1158 (Fed. Cir. 1998).

Disclosure of a species does not always provide sufficient written description for a broader claim. *In re Curtis*, 354 F.3d 1347, 1356-1357 (Fed. Cir. 2004)("we have never held that in all such cases [disclosure of a species] . . . the claim to a genus is adequately described under § 112, ¶ 1."); *Bilstad v. Wakalopulos*, 386 F.3d 1116, 1124 (Fed. Cir. 2004)("Thus, this court has continued to apply the rule that disclosure of a species may be sufficient written description support for a later claimed genus including that species."); *see also University of California v. Eli Lilly & Co.*, 119 F.3d 1559, 1568 (Fed. Cir. 1997).

The key to resolving the issue lies in what does the disclosed species tell one with ordinary skill in the art about possession by the inventor of the entire genus. Predictability among species is a factor to be considered. *Bilstad*, 386 F.3d at 1125; *In re Curtis*, 354 F.3d at 1352-53. And so is the question whether the differences between species even matter. *Bilstad*, 386 F.3d at 1124.

Analysis

Initially, we address claims 555 and 556. With regard to claim 555, the Examiner stated (Answer 70:20-23):

The Patent Owner has not pointed out where the entire scope of the new claim is supported via the supplied Appendix B, nor does there appear to be a written description of the claim limitation requiring the processor, which may communicate with an RF receiver without using an interface as recited.

As we have discussed earlier, claim 555 does not include an affirmative limitation of having a processor send information to the RF information transmission network without use of an interface, even when the doctrine of claim differentiation is applied. However, claim 555 is sufficiently broad to include the case in which the further other information that is not electronic mail is sent to a destination processor through the RF information transmission network without use of an interface.

NTP asserts that it did, by way of Appendix B to an Amendment/Response filed February 15, 2006, point out examples to the Examiner where the limitations of claim 555 are supported. (Brief 137:21 to 138:1). We have reviewed that material and note that NTP cited to the specification of a different patent, Patent 5,479,472, rather than NTP's '670 patent. Even assuming that the material cited does exist in the specification of the '670 patent, however, we see nothing which reflects that the inventors possessed the concept of sending any information to the RF information transmission network without passing it first through an interface.

As is pointed out by the Examiner (Answer 70:18-20), the portions of the disclosure identified by NTP describe that the "other processor"

transmits the other information through the interface switch prior to the information being sent to the RF information transmission network. NTP has not identified any disclosure which is drawn to the broader concept of sending that other information to the RF information transmission network without regard to whether an interface is used.

The disclosed configurations all involve the use of an interface to connect to the RF information transmission network. The interface can be either the one connecting the electronic mail system to the RF information transmission network or a separate interface. The term "interface" is also broad and covers any node or device through which the transmitted information passes. Transmitting information to the RF information transmission network without use of an interface is so fundamentally different from the disclosed arrangement that a prima facie case of lack of written description has been made by the Examiner simply by identifying the difference without need of further discussion.

In that regard, note that without use of an interface means the transmitted information would go directly from the sending processor to the RF information transmission network without passing through a telephone network, a gateway switch, an interface switch, or any other system component. Such a transmission stands in sharp and stark contrast to what is actually described and the significance of the difference is manifestly evident. Most of what is actually described in the case of a transmission through a public telephone network, several gateway switches, and interface switch, have little application to a direct connection without using any interface. Also, the difficulties of directly connecting a sending processor to

the RF information transmission network without use of an interface, *e.g.*, the infrastructure needed for providing the direct connection, is not involved when a interface telephone network or a gateway switch may be used.

When factors such as predictability and significance are considered, the evidence does not show that the inventors had possession of the broader concept of sending the other information to the RF information transmission network without regard to whether an interface is used.

For the foregoing reasons, NTP has not shown error in the rejection of claim 555.

The rejection of claim 556 is without merit, because it specifically recites that the further information is transmitted to the destination processor through the interface. The Examiner has not taken the position that that is not described. It appears that claim 556 was rejected simply for its dependence on claim 555. That is inappropriate.

Accordingly, the rejection of claim 556 cannot be sustained.

Caim 557 recites the limitation of deleting information from the electronic mail prior to transmission from the information transmission network. The Examiner explained that because electronic mail can typically include the four elements (a) destination address, (b) indication of sender, (c) short subject field, and (d) inputted text message, and because NTP's specification does not describe deleting elements (c) and (d), claim 557 is without written description. (Answer 70:24 to 71:12).

NTP makes a valid point that the Examiner does not appear to have recognized that according to the law governing written description analysis under 35 U.S.C. § 112, first paragraph, a generic claim feature can

sometimes be adequately supported by the disclosure of only some embodiments falling within the scope of the claim. Disclosure of a species may, but not always, provide sufficient written description for a broader claim. *In re Curtis*, 354 F.3d at 1356-57; *Bilstad*, 386 F.3d at 1124; *see also University of California*, 119 F.3d at 1568. The key to resolving the issue lies in what does the disclosed species tell one with ordinary skill in the art about possession by the inventor of the entire genus. Predictability among species is a factor to be considered. *In re Curtis*, 354 F.3d at 1352-53; *Bilstad*, 386 F.3d at 1125. And so is the question whether the differences between species even matter. *Bilstad*, 386 F.3d at 1124.

A prima facie case of lack of written description is usually not made if the Examiner merely points out that a claim feature is broader than the disclosed embodiments which are directed only to some implementations within the scope of the claim. There ordinarily should be some expressed basis to conclude that from the perspective of one with ordinary skill in the art possession of those specific embodiments does not reasonably convey that the inventors had possession of the broader claimed invention. The Examiner's analysis appears facially deficient.

However, here the difference is stark and the contrast is sharp between elements (a) and (b), on the one hand, and elements (c) and (d), on the other, without need for explicit discussion by the Examiner. The destination address, *i.e.*, element (a), helps to navigate and route electronic mail to the intended recipient. The identification of sender, *i.e.*, element (b), simply reveals the source or sender of electronic mail. Neither has anything to do with the substantive content of the electronic mail being transmitted, as

reflected in either the subject field of the electronic mail, *i.e.*, element (c), or the inputted message text, *i.e.*, element (d).

The disclosure supporting the deletion by the interface of the nonsubstantive portions of a transmitted electronic mail does not shed light into the operation or objective of deleting the substantive portions of the electronic mail such as the subject field or the inputted message text. There is no indication that the inventors knew of a purpose or were even interested in having the interface delete the subject field or the inputted message text of an electronic mail being transmitted. Also, it simply cannot be said that deleting the substantive portions of an electronic mail before it has reached the intended user recipient does not matter or is inconsequential.

Consideration of both the predictability factor and the consequential significance of the undisclosed species lead firmly to the conclusion that the specification as filed by NTP does not reasonably convey that the inventors, at the time of filing of NTP's '670 patent, had possession of the general feature of deleting information contained in the electronic mail being transmitted.

The same is true with respect to claims 577 and 597 each of which recites that the interface performs "varying content of the electronic mail." The Examiner did not question that NTP's '670 patent describes the addition, deletion, and encoding of header information which is not substantive content of the electronic mail. The Examiner stated (Answer 71:27-29):

While header addition, deletion and encoding may be adequately described, the varying of the content which includes more than mere addition, deletion and encoding [of header].

Header information is not the substantive content such as the subject field of the electronic mail message or the inputted text message of the electronic mail. The specification as filed simply does not disclose varying the substantive content of the electronic mail being transmitted. The difference between the routing information and the addressing information in the header and substantive content of a message is sharp and needs no explicit discussion from the Examiner. As we have determined above, there is no indication from the specification that the inventors knew of a purpose or were even interested in having the interface delete the subject field or the inputted message text of an electronic mail being transmitted, and it cannot be said that deleting the substantive portions of an electronic mail before it has reached the intended user recipient does not matter or is inconsequential. Deleting unnecessary addressing and routing information from the header is far different in effect and purpose from deleting the substantive content of electronic mail. Little is common and predictable between the two.

Consideration of both the predictability factor and the consequential significance of the undisclosed species lead firmly to the conclusion that the specification as filed by NTP does not reasonably convey that the inventors, at the time of filing of NTP's '670 patent, had possession of the broad and general feature of deleting information contained in the electronic mail. What the inventors had possession of was the varying of information contained in the header of the electronic mail, not electronic mail generally.

NTP has not shown error in the rejection of claims 557, 577 and 597.

Claims 595 and 573 each indirectly depends from original patent claim 1 and adds the further limitation that the gateway switch "optionally"

(1) initiates transmission of a portion of the electronic mail message to the RF receiver through the interface and the RF network based on an address in the electronic mail and pre-stored information in the gateway switch, or (2) initiates transmission of the electronic mail to a destination processor through the wireline without using the RF network system based on an address in the electronic mail and information pre-stored in the gateway switch. The Examiner indicates that the specification of the NTP '670 patent describes the former but not the latter.

It appears that the Examiner has overlooked a pertinent part of the disclosure of the NTP '670 patent. With regard to Figures 1-7, the specification first describes the preexisting prior art in a portion of the specification labeled as "BACKGROUND ART." (NTP '670 patent 1:49 through 17:39). Then, the specification states (NTP '670 patent 22:35-43):

The integrated system 100 [the invention] differs from the prior art of FIGS. 1-7 in that the originating processor, which may be any of the processors within computing systems #1-#N is provided the option of transmitting electronic mail (information) to at least one destination processor which may be any processor A-N within the processing systems #1-#N by means of an RF information transmission network 302 as described below. (Emphasis added.)

What is described in the specification subsequent to the above-quoted text is an addition to the preexisting system, and provides an added option for sending the electronic mail message to an RF information transmission network. The preexisting system, as described in the specification, directs the electronic mail message from the originating processor to the destination processor through a public switch telephone network 12 which uses wired

lines. (NTP '670 patent 2:54-63). In the prior art, the electronic mail is also routed through a gateway switch. (NTP '670 patent 2:57-63).

The Examiner determined that none of the descriptions NTP provided refers to determining whether an address is associated with a wireless or wireline device. (Answer 72:17-21). The statement lacks a reasoned analysis of the pertinent portion of the specification quoted above which refers to adding an option relative to the preexisting wirelined system. It may be that the description of providing an option reasonably conveys to one with ordinary skill that the same information is evaluated in the gateway switch to make the determination of whether to send the message by RF transmission or wireline. It is not explained why the determination of whether to make a RF transmission is not also a determination of whether to make a wired transmission. One seems to determine the other. The Examiner's not accounting for relevant disclosure undermines the determination that claim 595 is without adequate written description in the specification. The Examiner has not made out a prima facie case that the claim feature at issue is not described in the specification.

Also, according to the Examiner, the gateway switch described in NTP's specification does not "initiate" transmission of any electronic mail message because all electronic mail messages are really initiated in an originating processor. The Examiner's reading of the claim term "initiate" is unreasonably narrow. Because the gateway switch sends, redirects, or forwards electronic mail messages it has received from an originating processor, it does initiate transmission of an electronic mail message, *i.e.*, when it forwards or redirects the received message. The gateway switch

determines when it forwards the electronic mail message. When the message is forwarded, the gateway switch has initiated transmission of the message. In claims 573 and 595, the term "initiates" is used with respect to an electronic mail message that is forwarded or redirected by the gateway switch and which is initiated when it leaves the gateway switch, not to a message that is initiated when it is sent from an originating processor at another location. The Examiner's position is unreasonable.

For the foregoing reasons, the rejection of claims 573 and 595 cannot be sustained.

Claims 558-562 depend from claim 557 and were rejected solely on the basis of their dependence from claim 557. For reasons discussed above concerning claim 557, NTP has not shown error in the rejection of claims 558-562.

Claims 578-580 depend from claim 577 and were rejected solely on the basis of their dependence on claim 577. For reasons discussed above concerning claim 577, NTP has not shown error in the rejection of claims 578-580.

Claim 598 depends from claim 597 and was rejected solely on the basis of its dependence on claim 597. For reasons discussed above concerning claim 597, NTP has not shown error in the rejection of claim 598.

ORDER AND SUMMARY OF DECISION

It is ORDERED that:

1. The rejection of 1-4, 8, 24, 28, 34, 38, 57-60, 64, 80, 84, 90, 95, 113-116, 119-122, 125-128, 131-134, 173, 174, 177, 181, 182, 185, and 186 under 35 U.S.C. § 102(b) as anticipated by Cole is *affirmed*.

The rejection of claims 1-6, 8-19, 23-26, 28, 29, 33-36, 38, 39, 43-62, 64-75, 79-82, 84, 85, 89-92, 94, 95, 99-137, 140, 143, 144, 146, 149, 152, 155, 158, 161, 164, 167, 170, 173-189, 192, 195, 198, 201, 204, 207, 210, 213, 216, 219, 222, 224-276, 555-566, and 571-606 under 35 U.S.C. § 102(b) as anticipated by Telenor '89 is *affirmed*.

3. The rejection of claims 20, 30, 40, 76, 86, 96, 138, 139, 141, 142, 145, 147, 148, 150, 151, 153, 154, 156, 157, 159, 160, 162, 163, 165, 166, 168, 169, 171, 172, 190, 191, 193, 194, 196, 197, 199, 200, 202, 203, 205, 206, 208, 209, 211, 212, 214, 215, 217, 218, 220, 221, 223, 224, and 567-570 under 35 U.S.C. § 102(b) as anticipated by Telenor '89 is *reversed*.

4. The rejection of claims 1-4, 6, 8, 10-12, 14-16, 18, 19, 24, 26, 28, 29, 34, 36, 38, 39, 57-60, 62, 64, 66-68, 70-72, 74, 75, 80, 82, 84, 85, 90, 92, 94, 95, 113-116, 118-122, 124-128, 130-134, 136, 137, 143, 146, 152, 155, 161, 164, 170, 173, 174, 176, 177, 180, 181, 182, 184-186, 188, 189, 195, 198, 204, 207, 213, 216, 222, 225, 226, 228-230, 232, 233, 239, 242, 248, 251, 252, 254-256, 258, 259, 265, 268, 274, 563, 565, 567, 568, and 571 under 35 U.S.C. § 102(b) as anticipated by Verjinski is *reversed*.

5. The rejection of claims 3, 9, 17, 34, 36, 38, 39, 59, 65, 73, 90,
92, 94, 95, 116, 122, 128, and 134 were finally rejected under 35 U.S.C.
§ 103 as obvious over Verjinski is *affirmed*.

6. The rejection of claims 5, 25, 35, 61, 81, 91, 117, 123, 129, 135, 175, 179, 183, and 187 under 35 U.S.C. § 103 as obvious over Verjinski and the inventors' own admitted prior art is *affirmed*.

7. The rejection of claims 13 and 69 under 35 U.S.C. § 103 as obvious over Verjinski, Gehlot, and Rodriguez is *affirmed*.

8. The rejection of claims 138, 139, 144, 145, 148, 153, 154, 157, 162, 163, 165, 166, 171, 172, 190, 191, 196, 197, 199, 200, 205, 206, 208, 209, 214, 215, 217, 218, 223, and 224 under 35 U.S.C. § 103 as obvious over Verjinski and DeVaney is *affirmed*.

9. The rejection of claims 1-276 under 35 U.S.C. § 103 as obvious over the inventors' own admitted prior art, Harrison, and Shoch is *affirmed*.

10. The rejection of claims 4, 20, 24, 30, 60, 76, 80, 86, 90, and 96 under 35 U.S.C. § 103 as obvious over Perkins and Hortensius is *reversed*.

11. The rejection of claims 1, 19, 21-23, 29, 31-33, 57, 75, 77-79, 85, 87-89, 95, 97-99, 113, 114, 119, 120, 125, 126, 131, 132, 137, 146, 155, 164, 173, 174, 177, 178, 181, 182, 185, 186, 189, 198, 207, and 216 under 35 U.S.C. § 103 as obvious over Perkins and Hortensius is *affirmed*.

12. The rejection of claims 53-56 and 109-112 under 35 U.S.C.§ 103 as obvious over Perkins, Hortensius, and the inventors' own admitted prior art is *reversed*.

13. The rejection of claims 555-562, 573, 577-580, 595, 597 and 598 under 35 U.S.C. § 112, first paragraph, as lacking an enabling disclosure is *reversed*.

14. The rejection of claims 555-562, 577-580, 597 and 598 under35 U.S.C. § 305 as violating the prohibition against enlargement of the scope of a patent claim in a reexamination proceeding is *reversed*.

15. The rejection of claims 556, 573, and 595 under 35 U.S.C. § 112, first paragraph, as without written description in the specification is *reversed*.

16. The rejection of claims 555, 557-562, 577-580, 597, and 598 under 35 U.S.C. § 112, first paragraph, as without written description in the specification is *affirmed*.

AFFIRMED-IN-PART

Appendix 1

Index of CD disk pictures

Listed in order by picture number

- 004 Reference C1—front cover blue cover wrapped around
- 005 Reference C1—front cover blue cover peeled back
- 007 Reference C1—staples which have been removed
- 008 Reference C2—front cover
- 009 Reference C2—binder
- 010 Reference C2—handwritten notation
- 011 Reference C1—N.T.H. perforation
- 012 Reference C2—bar code inside front cover
- 013 Reference C2—N.T.H. perforation from inside front cover
- 015 Reference C3—N.T.H. perforation from inside front cover
- 016 Reference C3—bar code inside front cover
- 017 Reference C4—binder
- 018 Reference C4—front cover
- 019 Reference C4—perforation from inside front cover
- 020 Reference C4—bar code
- 021 Reference C4—handwritten notation
- 022 Reference C4—date stamp
- 023 Reference C5—front cover
- 024 Reference C5—binder and handwritten notation on cloth
- 025 Reference C5—perforation from inside front cover
- 026 Reference C5—bar code
- 027 Reference C5—showing binding coming apart
- 028 Reference C6—front cover
- 029 Reference C6—date stamps
- 030 Reference C6—binder and handwritten material

- 031 Reference C6—bar code
- 032 Reference C6—perforation from inside front cover
- 033 Reference C7—cover
- 034 Reference C7—date stamp
- 035 Reference C7—binder and handwritten material
- 036 Reference C7—perforation from inside front cover
- 037 Reference C7—bar code
- 038 Reference C7—showing binder coming apart at top of document
- 039 Reference C8—handwritten date on top of stamped date
- 040 Reference C8—cover
- 041 Reference C8—binder and handwritten material
- 042 Reference C8—perforations from inside front cover
- 043 Reference C8—showing lose pages
- 044 Reference C8—showing lose pages
- 049 Reference C8—handwritten material and date stamp
- 050 Reference C3—cover
- 052 Reference C1—damage and red marks on spines of documents
- 059 Reference C8—bar code
- 066 Reference C1—handwritten material
- 067 Reference C1—date stamp
- 068 Reference C1—bar code
- 069 Reference C1—Browne report, Exhibit 1—staple holes
- 070 Reference C4—trash mark
- 071 Reference C4—trash mark (pencil pointing to trash mark)
- 072 Reference C8—pages 82 and 83 UV comparisons
- 073 Reference C4—UV comparison Reference C4 and Reference C7
- 074 Reference C3—page 107
- 075 Reference C3—Annex 1 pages 1 and 2
- 076 Reference C5—date stamp

Listed in order by Reference C number

- 004 Reference C1—front cover blue cover wrapped around
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- 013 Reference C2—N.T.H. perforation from inside front cover
- 015 Reference C3—N.T.H. perforation from inside front cover
- 016 Reference C3—bar code inside front cover
- 050 Reference C3—cover
- 074 Reference C3—page 107
- 075 Reference C3—Annex 1 pages 1 and 2
- 017 Reference C4—binder
- 018 Reference C4—front cover
- 019 Reference C4—perforation from inside front cover
- 020 Reference C4—bar code
- 021 Reference C4—handwritten notation
- 022 Reference C4—date stamp
- 070 Reference C4—trash mark
- 071 Reference C4—trash mark (pencil pointing to trash mark)
- 073 Reference C4—UV comparison Reference C4 and Reference C7
- 023 Reference C5—front cover
- 024 Reference C5—binder and handwritten notation on cloth
- 025 Reference C5—perforation from inside front cover
- 026 Reference C5—bar code

Appeal No. 2008-004605

Reexamination Control 90/007,723, 90/006,678, 90/006,491 Patent No. 5,625,670

- 027 Reference C5—showing binding coming apart
- 076 Reference C5—date stamp
- 028 Reference C6—front cover
- 029 Reference C6—date stamps
- 030 Reference C6—binder and handwritten material
- 031 Reference C6—bar code
- 032 Reference C6—perforation from inside front cover
- 033 Reference C7—cover
- 034 Reference C7—date stamp
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- 072 Reference C8—pages 82 and 83 UV comparisons

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