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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DANIEL WARREN MACAULEY AND MATIAS PELUFFO

Appeal 2013-006270
Application 11/970,083
Technology Center 2400

Before ST. JOHN COURTENAY III, THU A. DANG, and LARRY J. HUME, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 3, 7, 9, 10, 13–15, and 25–32. Claims 1–2, 4–6, 8, 11, 12, and 16–24 were canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

INVENTION

This invention relates to "methods, systems and computer program products for using time domain reflectometry signatures to monitor network communication lines." (Spec. 1, Title). Claim 26, reproduced below, is representative of the claimed subject matter:

> 26. A method of monitoring a network that includes a plurality of communication lines, each communication line having an end that terminates at a respective user connector port and an opposite end that terminates at a respective patch panel connector port, the method comprising:
>
> [a] performing a time domain reflectometry (TDR) test on a first of the plurality of communication lines to calculate a length of the first of the plurality of communications lines;
>
> [b] comparing a result of the TDR test on the first of the plurality of communication lines to a stored TDR signature to determine if the length of the first of the plurality of communication lines has changed;
>
> [c] *using an intelligent patching system* to determine if a patching change has been made to the first of the plurality of communication lines;
>
> [d] identifying a potential fault in the first of the plurality of communication lines based on the determination that *the length of the first of the plurality of communication lines has changed in the absence of a patching change being made to the first of the plurality of communication lines*.

(Steps lettered and contested limitations emphasized).

REJECTIONS

R1. Claims 13–15, 26, 27, 30, and 31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Pharn (U.S. Patent Application Publication No. 2006/0164998 A1; published Jul. 27, 2006).

R2. Claims 3, 7, 9, 10, 25, 28, and 32 stand rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Pharn and Clark (U.S. Patent Application Publication No. 2008/0265915 A1; published Oct. 30, 2008).

R3. Claim 29 stands rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Pharn and Gourlay (U.S. Patent No. 7,719,992 B1; issued May 18, 2010).

GROUPING OF CLAIMS

Based on Appellants' arguments (App. Br. 5–11), we decide the appeal based on the following representative claims:

Rejection of claims:	on the basis of representative claim:
R1. 13–15 (App. Br. 11)	13
R1. 26, 27 (App. Br. 5–7)	26
R1. 30, 31 (App. Br. 7–9)	30
R2. 3, 7, 9, 10, 25, 28 (App. Br. 9–10)	28

See 37 C.F.R. § 41.37(c)(1)(iv)(2012).

We address rejection R2 of claim 32, argued separately (App. Br. 10–11), *infra*.

We address rejection R3 of claim 29, not argued separately, *infra*.

We note Examiner has withdrawn the 35 U.S.C. § 101 rejection of claim 25. (Ans. 16).[1]

[1] In the event of further prosecution of this application, we leave it to the Examiner to determine whether independent claim 25 meet the requirements of 35 U.S.C. § 112, fourth paragraph, for failing to further limit the subject

ANALYSIS

We have considered all of Appellants' arguments and any evidence presented. (App. Br. 5–11; Reply Br. 1–6). We disagree with Appellants' contentions regarding the Examiner's rejections of the claims. We address the specific contested claims as follows:

A. Rejection R1 under § 102

Issue: Under 102, did the Examiner err by finding Pharn anticipates the contested limitations of independent claims 13, 26, and 30?

(a) Independent Claim 26

Regarding contested limitation [c] of independent claim 26, Appellants contend:

> Pharm fails to disclose or suggest "*using an intelligent patching system* to determine if a patching change has been made to the first of the plurality of communication lines" as is recited. . . .

(App. Br. 5).

Appellants contend: "the TDR circuit 115 of Pharn is simply a standard TDR circuit that transmits TDR test signals and analyzes reflected

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matter of claim 28. Claim 25 recites, "A *computer program product* for monitoring a network, comprising a non-transitory computer readable storage medium having computer readable program code embodied therein, the computer readable program code being configured to carry out the *method* of Claim 28." (Emphasis added). However, claim 25 fails to specify a further limitation of the subject matter of claim 28 to which it refers, because the recited "*computer program product*" ("manufacture" statutory class under § 101) is completely outside the scope of the *method* ("process" statutory class under §101) of claim 28. *See Pfizer, Inc. v. Ranbaxy Labs. Ltd.*, 457 F.3d 1284, 1292 (Fed. Cir. 2006).

signals, and has nothing to do with a communications patching system, let alone automatically tracking connections in such a communications patching system." (App. Br. 6).

However, Appellants admit that *intelligent patching systems* are known in the art:

> Appellant respectfully submits, however, that intelligent patching systems are well known in the art as referring to communications patching systems that include functionality for automatically tracking patching connections in patching fields.

(App. Br. 6)

Appellants proffer further evidence of intelligence patching systems as known, prior art in their Specification, "Intelligent patching systems are described in U.S. Patent No. 6,222,908, which is incorporated herein by reference in its entirety." (Spec. 3, ll. 6–7, describing the "Background of the Invention").[2]

"A statement by an applicant in the specification or made during prosecution identifying the work of another as 'prior art' is an admission which can be relied upon for both anticipation and obviousness determinations, regardless of whether the admitted prior art would otherwise qualify as prior art under the statutory categories of 35 U.S.C. 102." MPEP §2129(I.), citing *Riverwood Int'l Corp. v. R.A. Jones & Co.*, 324 F.3d 1346, 1354 (Fed. Cir. 2003); *Constant v. Advanced Micro-Devices Inc.*, 848 F.2d 1560, 1570 (Fed. Cir. 1988).

This reasoning is applicable here. We are not persuaded by Appellants' arguments regarding contested limitation [c] because Appellants

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[2] U.S. Patent No. 6,222,908 issued on April 24, 2001, and is thus available as prior art in the context of an admission. (*See* Spec. 3, ll. 6–7).

admit that intelligent patching systems are well known in the art. (App. Br. 6).

We also conclude the scope of the broadest reasonable interpretation of the contested claim limitation ("to determine if a patching change has been made") includes Pharn's detection of an unexpected connection. (Ans. 3, citing Pharn ¶¶ 39–41).

Regarding contested limitation [d] of independent claim 26, Appellants contend:

> Notably, nothing in Pharn teaches or suggests determining if there was "*an absence of a patching change*" as is recited in Claim 26 in determining whether or not an identified change in the length of a communications line is indicative that a potential fault has occurred.

(App. Br. 6, emphasis added).

We begin with claim construction. "In the patentability context, claims are to be given their broadest reasonable interpretations . . . [L]imitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citations omitted). Any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." *Multiform Desiccants Inc. v. MedzamLtd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998).

We do not read limitations from the Specification into the claim.[3] However, we conclude the corresponding supporting description (Spec. 10,

[3] We note the scope of the claims on appeal, at a minimum, at least covers the corresponding supporting embodiment(s) described in the

ll. 27–33) at least falls within the scope of claim 26, because the Specification lists three exemplary conditions in which the contested claim limitation [d] ("the length of the first of the plurality of communication lines has changed *in the absence of a patching change* being made to the first of the plurality of communication lines") can be met.

Because the cited Pharn reference meets at least one such condition described in Appellants' Specification (*id.*), we find the Examiner's broader reading of the recited "in the absence of a patching change" (claim 26), is described by Pharn. (Ans. 6, citing Pharn).

In particular, the Examiner finds Applicants' claimed "in the absence of a patching change" (claim 26) is met by Pharn's TDR (Time Domain Reflectometry circuit). (Ans. 6, citing Pharn ¶¶ 39, 54.)

This finding is based on Applicants' own mapping of contested claim limitations [c] and [d] to the Specification (¶35; page 10, lines 27–33), which provides a list of three exemplary triggers. Specifically, Applicants describe and support the contested claimed "in the absence of a patching change" (claim 26) in the Specification by listing three conditions in which the length of a communication line is determined to have changed, without detection of (i.e., "in the absence of") a patching change:

Specification. We emphasize, however, that under a broad but reasonable interpretation, the scope of the claims is not limited to the preferred embodiments described in the Specification: "[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments. . . . [C]laims may embrace 'different subject matter than is illustrated in the specific embodiments in the specification.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (*en banc*) (citations and internal quotation marks omitted).

> If the length of the communication line changes without a detected patching change, the network system can either flag the change as a potential fault and provide the location of the fault or as a patching/cabling change that is not monitored by an intelligent patching system. *The triggers for this can include*: 1) *the amount of distance changed*; 2) whether the distance increased or decreased; and 3) whether the distance goes to zero indicating a patch cord was removed from a switch.

(Spec. 10, ll. 27–33, emphasis and underline added).

Because Pharn's TDR (¶39) determines if the network line distance (length) has changed (e.g. as indicated by an *unexpected condition* such as an unexpected tap and/or connection, ¶40), we find it meets at least trigger (1): "the amount of distance changed." (Spec. 10, l. 31).

Therefore, we conclude, under a broad but reasonable interpretation, that Pharn's TDR (¶39) meets what is described in the Specification (p. 10, l. 31) as supporting contested limitation [d]: "in the absence of a patching change . . . ." (Claim 26).

For these reasons, we find the preponderance of the evidence supports the Examiner's finding of anticipation regarding independent claim 26. Accordingly, we sustain rejection R1 of claim 26, and of grouped claim 27, that falls therewith. (*See* Grouping of Claims, *Supra*).

(b) Independent Claim 30.

Regarding independent claim 30, and contested limitation [a], (*identifying the new communication path for the first of the plurality of communication lines*), Appellants contend: "'identifying the new communication path' involves much more than just identifying that a connection change has occurred, as it involves determining the actual connectivity of the new communication path. Nothing in Pharn discloses or suggests performing this step. . . ." (App. Br. 8).

However, we agree with the Examiner's finding that Pharn's detected *unexpected connection* discloses "the new communication path" because once the *unexpected connection* is detected, this *unexpected connection* becomes the "new communication path." (Ans. 5, citing to ¶¶39–41 of Pharn).

Regarding contested limitation [b] (*wherein the identification of the new communication path is based on comparisons of the current TDR signature for the first of the plurality of communication lines and the stored baseline TDR signatures*), Appellants contend the Examiner has not properly supported the rejection. (App. Br. 8–9).

However, we agree with the Examiner's finding that Pharn describes using TDR signatures to determine an unexpected connection ("identification of the new communication path") based on a comparison of the reflected signal ("current TDR signature") with the stored signature information ("stored baseline TDR signatures"). (Ans. 5, citing to ¶¶39–41 of Pharn).

Therefore, on this record, we sustain Examiner's anticipation rejection R1 of claim 30, and of grouped claim 31, that falls therewith. (*See* Grouping of Claims, *Supra*).

(c) Independent Claim 13

Appellants contend Pharn fails to disclose the contested limitation: "*to use the current TDR signature to identify a new connection path for the first of the plurality of communication lines*," as recited in claim 13.

For the same reasons discussed above regarding the rejection of claim 30, we are not persuaded the Examiner erred in finding this contested limitation is disclosed by Pharn. We agree with the Examiner's finding because Pharn's TDR reflected signal ("current TDR signature") is used to determine an unexpected connection (i.e., "a new connection path") to the network line ("first of the plurality of communication lines"). (Ans. 8; Final Act. 3). We conclude, under a broad but reasonable interpretation, that the contested claim 13 limitation "a new connection path" includes Pharn's *unexpected connection*. (Ans. 3–4, Pharn ¶¶39–40).

Therefore, on this record, we sustain anticipation rejection R1 of claim 13, and of grouped claims 14 and 15, which fall therewith. (*See* Grouping of Claims, *Supra*).

B. Rejection R2 under § 103

(a) Independent Claim 28

Appellants contend "neither Pharn nor Clark teach or suggest "*automatically generating a work order that includes instructions to return an unauthorized connection to a previous, authorized state*" as is recited in the last clause of Claim 28." (App. Br. 10) (emphasis added).

At the outset, we conclude that Appellants' arguments urging patentability are predicated on non-functional descriptive material. (App. Br. 9–10).[4] We broadly, but reasonably, construe the informational content of the "*instructions to return an unauthorized connection to a previous, authorized state*" as non-functional descriptive material (NFDM) intended for human perception. *See* MPEP 2111.05, 9th ed., Mar. 2014 ("[W]here the claim as a whole is directed to conveying a message or meaning to a human reader independent of the intended computer system,

[4] The PTAB has provided guidance in decisions on the appropriate handling of claims that differ from the prior art only based on "non-functional descriptive material." *See Ex parte Nehls*, 88 USPQ2d 1883, 1889 (BPAI 2008) (precedential) ("[T]he nature of the information being manipulated does not lend patentability to an otherwise unpatentable computer-implemented product or process."); *Ex parte Mathias*, 84 USPQ2d 1276, 1279 (BPAI 2005) (informative) ("[N]onfunctional descriptive material cannot lend patentability to an invention that would have otherwise been anticipated by the prior art."), *aff'd*, 191 Fed.Appx. 959 (Fed. Cir. 2006) (Rule 36); *Ex parte Curry*, 84 USPQ2d 1272, 1274 (BPAI 2005) (informative) ("Nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious."), *aff'd*, No. 06-1003 (Fed. Cir. June 12, 2006) (Rule 36).

and/or the computer-readable medium merely serves as a support for information or data, no functional relationship exists.").

Our concerns regarding NFDM are focused principally on the claims on appeal (e.g., claim 28) in which the arguments presented urging patentability merely contest purported differences between the type or informational content of the claimed *data* (e.g., "instructions" claim 28), and do not substantively contest: (1) purported differences between the claimed structure(s) and the prior art structure(s), for apparatus claims, and/or (2) purported differences between the acts or steps of the claimed method, and the corresponding acts or steps found by the Examiner in the prior art.

If the claimed contested data elements are positively recited: (1) as actually being used to change or affect a machine function (for apparatus claims), or (2) as actually being used to change or affect the manner in which a step or act is performed (for method or process claims), then such data elements are generally considered by the USPTO and PTAB to be functional descriptive material and are given full patentable weight. [5]

Regarding independent method claim 28, we conclude the recited "*work order that includes instructions* to return an unauthorized connection to a previous, authorized state" is NFDM because the data or *informational content* of such *instructions* is not positively recited as *actually being used to change the manner in which any recited step or act of the method is performed*.

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[5] *See* MPEP § 2111.05 (9th Ed., Mar. 2014). In our analysis herein, we consider the extrinsic MPEP descriptions regarding NFDM as underlying subsidiary facts which inform our claim construction for all claims before us on appeal.

We further conclude the "instructions" of the "generated" work order of claim 28 appear to be intended for *reading and comprehension by a person*. In particular, claim 28 is silent regarding any language indicating the "instructions" contained in the "work order" are to be executed by a machine.

Even if we assume *arguendo* the aforementioned work order "instructions" (i.e., NFDM) may be accorded patentable weight by our reviewing court, we find the preponderance of the evidence supports the Examiner's underlying factual findings and ultimate legal conclusion of obviousness.

In particular, we find an artisan would possess the requisite *common sense* to perform this contested limitation because correcting an identified fault is an obvious intended purpose of a *work order* that was generated due to an unauthorized connection.[6] (Ans. 19–21). Our conclusion is further

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[6] A claimed invention is not patentable if it merely automates a prior art process. Broadly providing an automatic way to replace a manual activity accomplishing the same result is not sufficient to distinguish an automated process over the prior art. *In re Venner*, 262 F.2d 91, 95 (CCPA 1958). An improved product in the art is obvious if that "product [is] not [one] of innovation but of ordinary skill and common sense." *KSR*, 550 U.S. at 421. Similarly, it is obvious for one of ordinary skill in the art to combine an old electromechanical device with modern electronic circuitry in order to "update it using modern electronic components in order to gain the commonly understood benefits of such adaptation, such as decreased size, increased reliability, simplified operation, and reduced cost." Such a "combination is thus the adaptation of an old idea or invention [ ] using newer technology that is commonly available and understood in the art . . . ." *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007).

buttressed by Appellants' admission that "work orders" were known to those skilled in the art:

> *As is known to those skilled in the art of the present invention, a work order is a list of activities to be performed by a technician on a network.* According to embodiments of the present invention, a work order may include instructions to return an unauthorized connection to a previous, authorized state. Exemplary work order activities may include, but are not limited to, port configuration, installing network equipment, installing patch panels, installing outlets, cabling outlets to panels, adding/removing/moving patch cords, adding/removing/moving devices such as computers and phones, making changes to a communication/data network on passive connecting hardware *(e.g.*, connecting hardware, consolidation points, panels, etc.).

(Spec. 14, ll. 5–15, emphasis added). *See also* MPEP §2129(I.), regarding admissions.

For at least the aforementioned reasons, we are not persuaded the Examiner erred. Therefore, on this record, we sustain §103 rejection R2 of independent claim 28, and of grouped claims 3, 7, 9, 10, and 25 which fall therewith. (*See* Grouping of Claims, *supra*).

(b) Dependent Claim 32

Claim 32 recites:

> The method of Claim 28, wherein the instructions to return the unauthorized connection to a previous-authorized state *comprise instructions to change a patch cord connection*.

Claim 32 depends from independent claim 28, discussed above, and recites further NFDM relating to *instructions* intended for human perception that are not positively recited as actually being used to *change the manner in*

which any step or act is performed in base method claim 28. Therefore, for the same reasons discussed above regarding independent claim 28, we are not persuaded the Examiner erred. We sustain rejection R2 of claim 32.

(C). Rejection R3 of Independent Claim 29 under § 103

Appellants have not separately argued the Examiner's rejection of independent claim 29 as being unpatentable under §103(a) over the combined teachings and suggestions of Pharn and Gourlay. Arguments not made are considered waived. *See* 37 C.F.R. § 41.37(c)(1)(iv)(2012). Accordingly, we sustain §103 rejection R3 of independent claim 29.

DECISION

We affirm the Examiner's rejection R1 of claims 13–15, 26, 27, 30 and 31 under § 102(b).

We affirm the Examiner's rejection R2 of claims 3, 7, 9, 10, 25, 28 and 32 under § 103(a).

We affirm the Examiner's rejection R3 of claim 29 under § 103(a).

No time for taking any action connected with this appeal may be extended under 37 C.F.R. § 1.136(a)(1). *See* 37 C.F.R. § 41.50(f).

AFFIRMED

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