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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SCOTT SCHOOLING and MATTHEW C. SMITH

Appeal 2016-002838
Application 12/955,873
Technology Center 2400

Before THU A. DANG, ERIC S. FRAHM, and
SCOTT B. HOWARD, *Administrative Patent Judges*.

DANG, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1, 3–14, 16–25, and 27, which are all of the pending claims. Claims 2, 15, and 26 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

A. INVENTION

According to Appellants, in a switched digital video session, “there may be inadequate bandwidth to establish the requested new session and also maintain all existing sessions,” wherein “network bandwidth allocation is of interest” (Spec. 2, ll. 10–14). Thus, the invention relates to “usage forecasting in a switched digital video system” (Spec. 2, l. 21).

B. REPRESENTATIVE CLAIM

Claim 1 is exemplary:

A method comprising the steps of:

polling a plurality of digital video recorders to extract data indicative of recordings scheduled thereon, said polling being carried out over a video content network by a component at a node in said video content network that is remote from said plurality of digital video recorders;

filtering said data indicative of said scheduled recordings comprising data indicative of recordings for both switched digital video channels and channels other than said switched digital video channels to determine which of said scheduled recordings are said switched digital video channels, to obtain filtered data corresponding to said switched digital video channels over a plurality of service groups and times;

using at least a portion of said data corresponding to said switched digital video channels to obtain a prediction of future switched digital video channel usage for said video content network broken down by service group and time, without use or storage of tuning or remote control data; and

carrying out at least one network management activity on said video content network in response to said prediction of future switched digital video channel usage for said video content network.

C. REJECTION

Claims 1, 3–14, 16–25, and 27 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the teachings of Rieger et al. (US

2007/0076728, pub. Apr. 5, 2007), Sparrell (US 2009/0165056 A1, pub. June 25, 2009), and Osborne (US 2008/0244667 A1, pub. Oct. 2, 2008).

II. ISSUE

The principal issue before us is whether the Examiner erred in finding that the combination of Rieger, Sparrell and Osborne teaches or suggests “*filtering said data indicative of said scheduled recordings... to obtain filtered data corresponding to said switched digital data channels over a plurality of service groups and times*” (claim 1, emphasis added).

III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Rieger

1. Rieger relates to bandwidth optimization in switched network architecture, wherein bandwidth usage is optimized by determining a usage profile as a function of time (¶¶ 5–6).
2. A multiple systems operator (MSO), controlling a head-end (¶ 50), gathers, retains and analyzes information from customer premises equipment (CPE), and builds a historical database based on data relating to aggregate behavior of subscribers within a service group (¶¶ 60–61). Subscriber activity such as viewer tuning data gathered by the client devices and stored in the historical database is used for subsequent speculative or anticipatory control (¶ 23).
3. Multiple servers can be used that are used to feed a service group or different service groups (¶ 76).

4. The server process generates a “rules” file for the CPE dictating how the CPE client process will operate to collect data for the server process, and the client process processes segments of the historical data it obtains from the CPE before sending this to the server process (§ 103). The client process reads the rules file and then begins collecting data regarding the parameters of interest, wherein the activity is monitored according to a prescribed time interval, on a regular/irregular basis (§ 108).

Sparrell

5. Sparrell discloses scheduling a recording of an upcoming switched digital video (SDV) program deliverable over a content delivery system Abstract), wherein advance information concerning the amount of upcoming SDV bandwidth required is made available (§ 32). The advance information is provided to the SDV manager along with other status information regularly provided to the SDV manager, such as tuning information, for example (*id.*). The SDV manager stores, for each of the subscriber terminals, upcoming scheduled recording information (§ 39).

IV. ANALYSIS

Although Appellants concede Rieger discloses a filtering step, Appellants contend “the filtration or truncation of Rieger is performed at a *client process* of a consumer premises equipment (CPE) that can predigest ‘*raw switching data*’” (App. Br. 9). Thus, Appellants contend “[t]here is no teaching or suggestion in Rieger of a concrete application of a filtration process . . . acting on data concerning ‘scheduled recordings’ performed by the server process” (*id.*). That is, “Rieger’s ‘filtration’ is a client side

process acting on raw switching data, as opposed to a server process acting on data including information about scheduled recordings” (App. Br. 10).

Appellants also contend the Rieger’s paragraph [0061] “can be fairly limited to predictions about users within a single service group” (App. Br. 12), and thus there is no teaching or suggestion in Rieger of “. . . filtered data corresponding to said switched digital video channels *over a plurality of service groups* and times” as claimed (App. Br. 11). Similarly, Appellants contend “at most the SDV managers of Sparell service a single service group” (App. Br. 12).

Appellants then contend “there is no articulated reasoning for why or how the teachings of Rieger . . . can be combined with those of . . . Osborne and . . . Rieger” (*id.*).

We have considered all of Appellants’ arguments and evidence presented. However, we disagree with Appellants’ contentions regarding the Examiner’s rejections of the claims.

As a preliminary matter of claim construction, we give the claims their broadest reasonable interpretation consistent with the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). While we interpret claims broadly but reasonably in light of the Specification, we nonetheless must not import limitations from the Specification into the claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc).

Although Appellants contend “the filtration or truncation of Rieger is performed at a client process of a consumer premises equipment (CPE) that can predigest ‘raw switching data’” (App. Br. 9, emphasis omitted), we note the claims do not preclude a “client process” that predigest “raw switching data” (*id.*). In particular, we agree with the Examiner that “the claimed

‘filtering’ . . . does not preclude said filtering from occurring at the client side” (Ans. 3). Instead, claim 1 merely recites “filtering” data “indicative of said scheduled recordings” (claim 1), and does not require that the filtering be performed at a “server process” as Appellants contend (App. Br. 10).

Based on the record before us, we agree with the Examiner’s findings, and find no error with the Examiner’s conclusion that the claims would have been obvious over the combined teachings.

The test for obviousness is what the combined teachings *would have suggested* to one of ordinary skill in the art. *See In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). We are unpersuaded of Examiner error in finding the combination of Rieger *and* Sparrell (as well as Osborne) teaches or at least suggests the contested limitation. That is, although Appellants contend that “there is no teaching or suggestion in Rieger” of the contested limitations (App. Br. 9–12), we agree with the Examiner that the contested limitations are taught or at least suggested by the combination of references.

Similar to Appellants’ invention, Rieger relates to bandwidth optimization in switched network architecture, wherein bandwidth usage profile is determined (FF 1). In Rieger, a head-end gathers, retains and analyzes information from CPE such as DVRs, and builds a historical database based on data relating to aggregate behavior of subscribers, including activities such as viewing tuning data of the subscribers (FF 2). The server process dictates how the CPE client process will collect data for the server process, and the client process processes segments of the historical data it obtains from the CPE before sending this to the server

process, wherein the activity is monitored according to a prescribed time interval, on a regular/irregular basis (FF 4).

We agree with the Examiner that, in Rieger, the “server process instructs client process to obtain data of interest from CPEs” (Final Rej. 7). Thus, we find no error with the Examiner’s reliance on Rieger for teaching or at least suggesting filtering said data to obtain filtered data, as recited in claim 1.

Although the Examiner finds that Rieger’s filtered data includes data related to tuning activity but not specifically “data indicative of scheduled recordings” (Ans. 4; FF 2), the Examiner points out that “the limitation is . . . rejected using the Sparrell reference” (Ans. 4).

Sparrell discloses providing advance scheduling information for subscriber terminals, along with other status information regularly provided to the SDV manager, such as tuning information (FF 5). We agree with the Examiner’s finding Sparrell “specifically recites that an SDV manager (i.e., a server) may receive from various CPEs data indicative of upcoming SDV programs that are scheduled for recording” (Ans. 4).

Thus, we find no error in the Examiner’s reliance on the *combination* of Rieger and Sparrell for teaching and suggesting the contested limitation of claim 1. We agree that it would have been obvious to the ordinarily skilled artisan to modify Rieger with Sparrell to use data indicative of a recording schedule of a DVR “as it is beneficial to know as much in advance as possible the exact amount of incoming bandwidth that will be required” (*id.*). In particular, we find that the ordinarily skilled artisan, upon reading that Sparrell discloses providing advance scheduling information for subscriber terminals, along with tuning information (FF 5), would have

found it obvious to include the scheduling information with Rieger's data (FF 2, 4). That is, we find combining Sparrell's data with Rieger's data, to an ordinarily skilled artisan, is simply a combination of familiar prior art practices or acts (as taught or suggested by the cited combination of references) that would have realized a predictable result. The skilled artisan is "a person of ordinary creativity, not an automaton." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 420–21 (2007).

Moreover, Appellants have not provided any evidence that combining the familiar elements and/or practices described in the Examiner's proffered combination would have been "uniquely challenging or difficult for one of ordinary skill in the art" (*Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007)), or would have yielded unexpected results.

We disagree with Appellants' argument that "the rejection fails to provide a clear articulation of the reasons why the claimed invention would have been obvious" (App. Br. 10). In particular, we are not convinced of error with the Examiner's finding that it would have been obvious to modify Rieger with Sparrell to use data indicative of a recording schedule of a DVR "as it is beneficial to know as much in advance as possible the exact amount of incoming bandwidth that will be required" (Ans. 5). We find the Examiner set forth sufficient "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006); *see also* 35 U.S.C. § 132.

As to Appellants' contention that the Rieger's paragraph [0061] "can be fairly limited to predictions about users within a single service group" (App. Br. 12), we agree with the Examiner that Rieger also discloses that

“the system may service multiple different service groups” (Ans. 7; FF 3). We are unpersuaded of error in the Examiner’s finding that “Rieger teaches and suggests ‘filtered data corresponding ... to said switched digital video channels *over a plurality of service groups* and times” (id.).

Based on this record, we find no error in the Examiner’s rejection of independent claim 1, and independent claims 14 and 25, which are not separately argued and falling therewith (App. Br. 12), as well as claims 3–13, 16–24, and 27, respectively depending therefrom, over Rieger, Sparrell and Osborne.

V. CONCLUSION AND DECISION

We affirm the Examiner’s rejections of claims 1, 3–14, 16–25, and 27 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED