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Paper No. 6
Entered: September 19, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

KONINKLIJKE KPN N.V.,
Patent Owner.

Case IPR2016-00808
Patent 8,886,772 B2

Before JONI Y. CHANG, JENNIFER S. BISK, and JACQUELINE T. HARLOW, *Administrative Patent Judges.*

HARLOW, *Administrative Patent Judge.*

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner, Samsung Electronics Co., LTD ("Samsung"), filed a Petition requesting an *inter partes* review of claims 1, 2, and 8–16 of U.S. Patent No. 8,886,772 B2 (Ex. 1001, "the '772 patent"). Paper 2 ("Pet."). Patent Owner, Koninklijke KPN N.V., ("KPN"), filed a Preliminary Response on July 1, 2016. Paper 5 ("Prelim. Resp."). We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted unless the information presented in the petition "shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."

For the reasons set forth below, we deny the Petition.

A. Related Matters

The '772 patent is asserted against Samsung in *Koninklijke KPN N.V. v. Samsung Electronics America, Inc. et al*., Case No. 2:14-cv-01165-JRG (E.D. Tex.). Pet. 1–2.

B. The '772 Patent

The '772 patent is titled "Method and System for Remote Device Management." Ex. 1001, [54]. The '772 patent issued from U.S. Patent Application No. 12/512,242, filed on February 4, 2010. *Id*. [21], [22]. The '772 patent claims priority to European Patent Application Nos. 08013735.9 and 08161850.6, which were filed July 31, 2008 and August 5, 2008, respectively. *Id*. [30].

The ’772 patent describes a system and method “for remote device management [that] includes in a network an auto-configuration server managing device [(“ACSMD”)], at least one database, and a plurality of auto-configuration servers.” *Id*. at Abstract. The system and method disclosed in the ’772 patent purport to improve upon prior art systems by allowing configuration of “any type of manageable electronic device at any given location and within any level of service or group specification without pre-configuring a dedicated address for configuration.” *Id*. at 2:22–25.

Figure 2 of the ’772 patent is reproduced below.

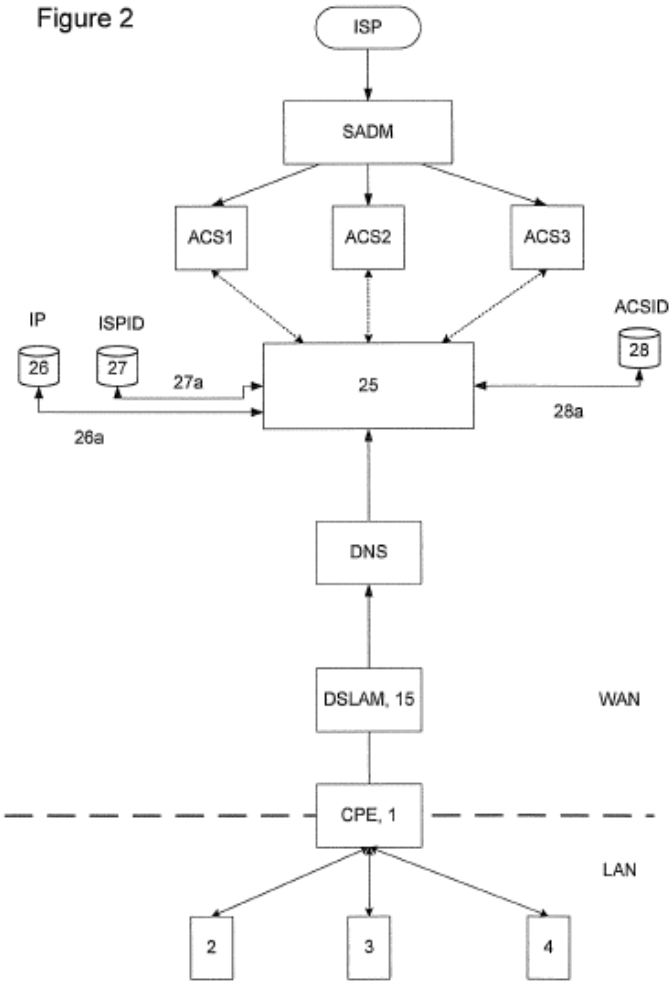


Figure 2 is a schematic representation of an embodiment of the architecture for remote device management described in the '772 patent. *Id*. at 3:48–49. As depicted in Figure 2, interfacing device 1, typically a manageable electronic device (*id*. at 3:66–67), is communicatively coupled to auto-configuration server manager ("ACSM") 25. *Id*. at Fig. 2. ACSM 25, in turn, is arranged for controlling access by interfacing device 1 to the auto-configuration servers ("ACSs"), that is, ACS1, ACS2, ACS3. *Id*. at 5:8–10.

Figure 3a of the '772 patent is reproduced below.

Figure 3a

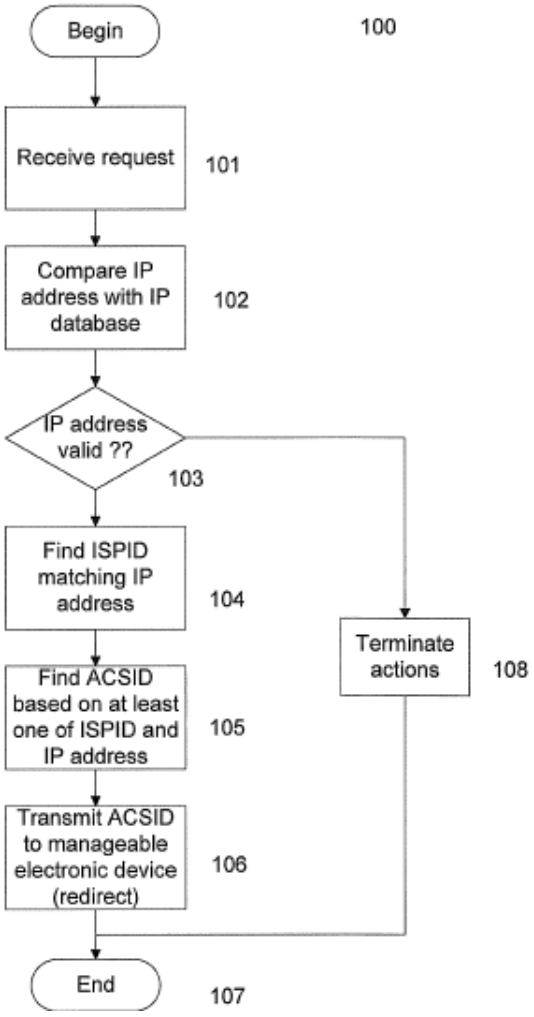


Figure 3a shows a flow diagram of an embodiment of the invention described in the ’772 patent, in which a manageable electronic device in a local area network (“LAN”), i.e., interfacing device 1, requires configuration data for auto-configuration server ACS1. *Id*. at 5:46–50.

As depicted in Figure 3a, in step 101, ACSM 25 receives a request for configuration information from interfacing device 1, which is a manageable electronic device. *Id*. at 6:3–4. “Typically, the request comprises the IP address of the manageable electronic device **1** and information on the type or function of the manageable electronic device **1**.” *Id*. at 6:5–7.

In step 102, ACSM 25 compares the received IP address of interfacing device 1 with IP address information in database 26. In step 103, ACSM 25 checks whether the IP address of interfacing device 1 is a valid address in database 26. If so, the method continues to step 104; if not, the method proceeds to step 108 and terminates.

In step 104, ACSM 25 resolves the identity of the service provider ISPID from the IP address using database 27, which includes information associating the service provider ISPID with the IP address of interfacing device 1. In step 105, ACSM 25 resolves an IP address ACSID of the dedicated ACS from at least one of the identity of the service provider ISPID and the received IP address of the interface device 1, using database 28 which associates the IP address of the dedicated ACS with at least one of the identity of the service provider ISPID and the IP address of interface device 1.

In step 106, ACSM 25 transmits the identity ACSID of the dedicated ACS server to interfacing device 1. The method then terminates in step 107.

C. Illustrative Claim

Of the challenged claims, claims 1, 10, 12, and 15 are independent. Claim 1, reproduced below, is illustrative of the claimed subject matter.

> 1. A system for remote device management comprising:
>
> a plurality of auto-configuration servers (ACSs);
>
> a manageable electronic device;
>
> an auto-configuration server managing device (ACSMD) for controlling access to the ACSs communicatively coupled intermediately between the plurality of ACSs and the managed electronic device; and
>
> at least one database communicatively coupled to the ACSM and storing information for the identification of electronic devices,
>
> wherein the manageable electronic device is configured to send a request for configuration data to the ACSMD,
>
> wherein configuration data comprise data for configuring the manageable electronic device, and
>
> wherein the ACSMD is configured, responsive to receiving the request, to:
>
> identify the manageable electronic device by comparing at least a portion of the request with the information for the identification of electronic devices of the at least one database, and

> identify an ACS from the plurality of ACSs in accordance with the identification of the manageable electronic device to provide configuration data to the manageable electronic device, and
>
> wherein the ACSMD is further configured to relay the request to the identified ACS.

Ex. 1001, 9:52–10:10.

D. Prior Art Relied Upon

Samsung relies upon the following prior art references (Pet. 3–4):

Bauchot	US 5,912,918	June 15, 1999	(Ex. 1016)
Yla-Mella	US 6,526,290	Feb. 25, 2003	(Ex. 1005)
Barakat	US 2003/0040310	Feb. 27, 2002	(Ex. 1004)

Regis J. Bates, GPRS (McGraw-Hill 2002) (Ex. 1003).

Admitted Prior Art – The Background of the Invention Section of the '772 patent. Ex. 1001, 1:50–60.

E. Asserted Grounds of Unpatentability

Samsung asserts the following grounds of unpatentability (Pet. 4):

Claim(s)	Basis	Reference(s)
1, 2, 10–16	§ 103(a)	Bates
8	§ 103(a)	Bates and Barakat
8	§ 103(a)	Bates and Yla-Mella
9	§ 103(a)	Bates in view of the Admitted Prior Art
9	§ 103(a)	Bates and Bauchot, in view of the Admitted Prior Art

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable interpretation in light of the Specification of the patent in which they appear. 37 C.F.R. § 42.100(b). Under the broadest reasonable interpretation standard, claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

"a request . . . the request"

Independent claim 1 recites, in pertinent part,

> wherein the manageable electronic device is configured to send *a request* for configuration data to the ACSMD, . . . and
>
> wherein the ACSMD is configured, responsive to receiving *the request*, to:
>
> *identify the manageable electronic device* by comparing at least a portion of the request with the information for the identification of electronic devices of the at least one database, and
>
> *identify an ACS from the plurality of ACSs* in accordance with the identification of the manageable electronic device to provide configuration data to the manageable electronic device, . . .

Ex. 1001, 9:62–10:10 (emphasis added). Independent claim 15 includes substantially identical limitations, and in particular, requires that "responsive to receiving *the request*, the ACSMD: identifying the manageable electronic device . . . , and identifying an ACS from the plurality of ACSs." Ex. 1001, 12:23–35 (emphasis added).

Independent claims 10 and 12 differ somewhat, reciting respectively, a computer configured, and a computer program product configured to cause the processing unit, "responsive to receiving *a request* from a manageable electronic device for configuration data," to:

> [*identify/identifying*] *the manageable electronic device* by comparing at least a portion of *the request* with the information for the identification of electronic devices of the at least one database, and
>
> [*identify/identifying*] *an ACS from the plurality of ACSs* in accordance with the identification of the manageable electronic device to provide configuration data to the manageable electronic device, . . .

Ex. 1001, 10:65–11:8, 11:29–40 (emphasis added).

KPN contends that the above-described terms from claims 1, 10, 12, and 15 are "similar" (Prelim. Resp. 22), and that each claim should, therefore, be construed to require that "the manageable electronic device and the ACS both are identified responsive to the ACSMD receiving a single request" (*id*. at 24–25 (emphasis omitted)). Specifically, KPN asserts that because "claim 1 (and the other independent claims) recite just one 'request for configuration data' transmitted to the ACSMD, it would be unreasonable to construe the manageable electronic device and an ACS being identified

responsive to two or more different requests." *Id*. at 22. KPN also points to the use of the article "the" before "request" as indicating that "'the request' refers to a specific request . . . rather than more than one previously undefined request." *Id*. at 22–23. KPN additionally states that the Specification teaches that a single request is received by the ACSMD from the manageable electronic device. *Id*. 23–24.

We agree with KPN that the term "the request," as used in claims 1, 10, 12, and 15, derives its antecedent basis from the preceding recitation of "a request" in each of those claims. Accordingly, while "a request" may encompass one or more separate requests, "the request" refers back to "a request," and defines the parameters that any particular request must satisfy to fall within the scope of the claim. *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1306 (Fed. Cir. 2005) (noting that "the," which is a definite article, "is a word of limitation" that "particularizes the subject which precedes it" (quoting *Warner-Lambert Co. v. Apotex Corp.*, 316 F.3d 1348, 1356 (Fed. Cir. 2003))).

Because claims 1 and 15 respectively require that the ACSMD is either configured to perform, or performs, "responsive to receiving *the request*," the steps of: identifying the manageable electronic device, and identifying an ACS (Ex. 1001, 9:66–10:8, 12:27–35), we agree with KPN that claims 1 and 15 each require that "the manageable electronic device and the ACS both are identified responsive to the ACSMD receiving a single request."

We cannot agree, however, with KPN's position that claims 10 and 12 are sufficiently similar to claims 1 and 15 such that claims 10 and 12 should also be construed to require that "the manageable electronic device and the ACS both are identified responsive to the ACSMD receiving a single request" (Prelim. Resp. 24–25 (emphasis omitted)). As explained above, claims 10 and 12 recite that identification of the manageable electronic device and identification of an ACS occur "responsive to receiving *a request* from a manageable electronic device for configuration data" (Ex. 1001, 10:65–67, 11:30–32 (emphasis added)). Accordingly, we decline to construe claims 10 and 12 to require that the manageable electronic device and ACS are both identified responsive to a single request. *See Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008) ("That 'a' or 'an' can mean 'one or more' is best described as a rule, rather than merely as a presumption or even a convention. The exceptions to this rule are extremely limited: a patentee must 'evince[] a clear intent' to limit 'a' or 'an' to 'one.'" (internal citation omitted)).

We observe, however, that the requirement of each of claims 1, 10, 12 and 15 that the manageable electronic device be identified by comparing at least a portion of "the request" with the information for the identification of electronic devices of the at least one database (Ex. 1001, 9:66–10:8, 10:65–11:4, 11:29–36, 12:27–35) derives its antecedent basis from the preceding "a request" for configuration data (*id.* at 9:62–63, 10:65–67, 11:29–32, 12:23–26). Thus, some portion of any particular "a request" for configuration data must be used in the recited comparison of "at least a portion of the request"

with the information for the identification of electronic devices of the at least one database. *See NTP, Inc.*, 418 F.3d at 1306.

Other terms

Samsung seeks construction of the claim terms "a plurality of auto-configuration servers (ACSs)" (Pet. 17–19) and "auto-configuration server managing device (ACSMD)" (*id*. at 19–21), which appear in each challenged independent claim. Samsung acknowledges, however, that the constructions it advocates are narrower than the constructions proffered by KPN. *Id*. at 19, 21. Indeed, the constructions advanced by Samsung in this proceeding are narrower than those ultimately adopted by the court in the related district court proceedings. Ex. 2003, 42–48. Samsung additionally avers that its unpatentability arguments in the instant proceeding apply with equal force under KPN's proposed constructions because those constructions "encompass[]" Samsung's proposed constructions. Pet. at 19, 21.

Because, as Samsung concedes, neither the construction of "a plurality of auto configuration servers (ACSs)" nor the construction of "auto configuration server managing device (ACSMD)" is necessary to resolve the controversy, we decline to construe either of these terms. *See Vivid Techs., Inc.*, 200 F.3d at 803.

B. Obviousness Grounds of Unpatentability Based on Bates

Samsung asserts that claims 1, 2, and 10–16 are unpatentable under § 103(a) as obvious in view of Bates. Pet. 21–47. Claim 2 depends directly from independent claim 1, claim 11 depends directly from independent claim 10, claims 13 and 14 depend directly from independent claim 12, and claim 16 depends directly from claim 15. Samsung relies upon the Declaration of Dr. Peter Reiher ("Reiher Declaration") (Ex. 1006), as well as the Declaration of Scott Bennett, Ph.D. ("Bennett Declaration") (Ex. 1007) to support its positions.

KPN addresses its responsive arguments to the limitations of claim 1, which it asserts are "[v]irtually identical" to the corresponding limitations of independent claims 10, 12, and 15. Prelim. Resp. 25–26. Pertinent to this Decision, KPN argues that Samsung improperly relies on two separate requests to satisfy the claim 1 requirement that the manageable electronic device and ACS be identified "responsive to receiving *the request*." *Id*. at 26–29 (emphasis added).

KPN further contends that Samsung fails to establish that Bates discloses performing a comparison between a portion of a request for configuration data, and device identification information of a database, in order to identify the mobile station. *Id*. at 34–36. KPN argues also that an ordinarily skilled artisan in possession of Bates would not have had reason to include the identity of the mobile station in a modified request for configuration data, or to alter the device in Bates identified by Samsung as

corresponding to the ACSMD to perform a comparison of such a modified request with information of a database. *Id*. at 37–38.

Overview of Bates

Bates describes General Packet Radio Service ("GPRS") procedures, including the GPRS attach procedure and the activate Packet Data Protocol ("PDP") context procedure. Ex. 1003, 149–163. Bates explains that the GPRS attach procedure, which includes the GPRS attach request, and the activate PDP context procedure, which includes the activate PDP context request, are separate procedures. Bates discloses, for example:

> To exchange data packets with external packet data networks (PDNs) after a successful GPRS attach, a mobile station must apply for one or more addresses used in the PDN . . . . This address is called the PDP address. For each session, a so-called PDP context is created, which describes the characteristics of the session.

Id. at 135 (emphasis omitted); *see also id*. at 150 ("After attaching, one or more routing contexts for one or more Packet Data Protocols (PDPs) can be negotiated with the [Serving GPRS Support Node ("SGSN")].") (emphasis omitted). Bates explains further that "[i]t is important to understand the difference between a mobile station attaching to a SGSN and a mobile station activating a PDP address. A single mobile station attaches to only one SGSN; however, it may have multiple PDP addresses that are all active at the same time." *Id*. at 89.

Bates teaches that during the GPRS attach procedure, the mobile station attaches itself to the wireless network, and more specifically to a SGSN. *Id.* at 153–154. Bates discloses that four steps are involved in the

attach process, including the transmission of a GPRS attach request from the mobile station to the SGSN, and the verification of user authentication and authorization by the SGSN. *Id*. at 154.

With regard to the GPRS attach request sent to the SGSN by the mobile station, Bates explains that the request includes either a Temporary Mobile Subscriber Identity ("TMSI") or a Packet Temporary Mobile Subscriber Identity ("P_TMSI"). *Id*.

Concerning the verification of the user by the SGSN, Bates explains that "[t]he SGSN verifies whether the user is authorized and authenticated for that particular service by checking with the [Home Location Register ("HLR")] entry for the mobile station. *Id*. The HLR stores information relating to "all subscribers registered in the network," including "the Subscriber ID, MSISDN, [International Mobile Subscriber Identity ("IMSI")], current location (switch area), and subscription services chosen." *Id*. at 130. "When a mobile station attempts to attach to the GPRS network, the HLR provides subscription data to the SGSN." *Id*.

The Equipment Identity Register ("EIR") is another register that, like the HLR, is part of the Network Switching Systems ("NSS"). *Id*. at 44–45. The EIR "is a database that contains a list of all valid mobile equipment on the network, where its International Mobile Equipment Identity (IMEI) identifies each mobile station. An IMEI is marked as invalid if it has been reported stolen or is not type approved." *Id*. at 45.

Bates discloses that after the GPRS attach procedure is complete, but "[b]efore data can be sent or received, a PDP context (a data address) must

be activated (created for the mobile station)." *Id*. at 157; *see also id*. at 169 ("To achieve a Web access, the mobile station first performs a GPRS attach procedure to become ready and then the PDP context activation to establish communications with an Internet host"). The PDP context is used for routing within the GPRS network. *Id*. at 157. Notably, "[a] GPRS subscription contains several PDP addresses and an individual PDP context is maintained in the mobile station, SGSN, and [Gateway GPRS Support Node ("GGSN") for every PDP address." *Id*. Thus, there is a one-to-many relationship between GPRS attach procedure (and associated GPRS attach request), and activate PDP context procedure (and associated activate PDP context request). *Id*. at 89.

In the first step of the activate PDP context procedure, the mobile station sends an activate PDP context request to the SGSN. *Id*. at 159. This request may include a PDP type, PDP address, and an APN that specifies a particular GGSN. *Id*. at 159–160. The SGSN then transmits a domain name system ("DNS") query, which includes the APN information from the mobile station, to a DNS server. The DNS server responds by transmitting a list of GGSNs. *Id*. at 161. The SGSN selects one of the GGSNs identified by the DNS server, and sends a create PDP context request to that GGSN. *Id*. at 162, 342. The GGSN then transmits a create PDP context response to the SGSN (*id*. at 160 (Figure 5–11), 343), which subsequently transmits the activate PDP context to the mobile station (*id*. at 160–162).

"wherein the ACSMD is configured, responsive to receiving the request, to: identify the manageable electronic device by comparing at least a portion of the request with the information for the identification of electronic devices of the at least one database"

Samsung has not shown a reasonable likelihood of prevailing on its contention that Bates discloses "wherein the ACSMD is configured, responsive to receiving the request, to: identify the manageable electronic device by comparing at least a portion of the request with the information for the identification of electronic devices of the at least one database" ("the 'identify the manageable device' limitation"), as required by claim 1. Neither has Samsung shown a reasonable likelihood of prevailing on its contention that Bates discloses the corresponding limitations of claims 10, 12, and 15.

As an initial matter, we observe that Samsung characterizes each of claims 10, 12, and 15 as including limitations "nearly identical" or "substantially identical" to the "identify the manageable device" limitation of claim 1. Pet. 41, 44, 46. Moreover, Samsung relies solely on the arguments presented as to the "identify the manageable device" limitation of claim 1 to support the obviousness of the corresponding elements of claims 10, 12, and 15. *Id*. at 41, 44, 47. Accordingly, because Samsung relies on the same arguments presented as to claim 1, and does not identify any meaningful difference between the language used in claim 1 and the various other independent claims, our below analysis of the obviousness of the "identify the manageable device" limitation of claim 1 applies with equal force to claims 10, 12, and 15.

Turning to the merits of Samsung's obviousness analysis, Samsung advances three arguments in support of its position that Bates discloses the "identify the manageable device" limitation. First, Samsung contends that the GPRS attach procedure described by Bates discloses the "identify the manageable device" limitation. *Id*. at. 34–35. Samsung points to Bates' teachings that a mobile station sends a P_TMSI or IMSI to the SGSN as part of the GPRS attach request (Ex. 1003, 154), that the HLR stores the IMSI associated with the mobile station (*id*. at 130), and that the SGSN subsequently "verifies whether the user is authorized and authenticated for that particular service by checking with the HLR entry for the mobile station" (*id*. at 154) as satisfying this claim element. Pet. 34–35. Relying on the testimony of its expert witness, Dr. Peter Reiher, Samsung reasons that

> during a GPRS attach procedure, the SGSN receives the attach request from the mobile station, and authorizes and authenticates the mobile station by comparing a portion of the attach request (i.e., the IMSI of the mobile station) with identifying information for the mobile station obtained from at least one database (i.e., the HLR).

Pet. 35 (citing Ex. 1006 ¶ 145).

Samsung argues also that Bates' disclosure that during the activate PDP context procedure, the SGSN compares PDP type, PDP address, and APN values received from the mobile station as part of the activate PDP context request with "its local subscribed values (this information exists locally because of the GPRS attach)" (Ex. 1003, 342) satisfies the "identify the manageable device" limitation. Pet. 35.

> Finally, relying on Dr. Reiher, Samsung asserts that
>
> even if the IMSI stored in the HLR is not interpreted literally as "information for the identification of electronic devices," one of ordinary skill would be motivated to augment the Activate PDP context request to include equipment identification data (such as the IMEI of the mobile station), and modify the SGSN to compare the equipment data with IMEI data found in the EIR.

Pet. 35 (citing Ex. 1006 ¶ 147). Samsung and Dr. Reiher point out that Bates discloses that the EIR is one of "two registers [that] are used for authentication and security purposes" (Ex. 1003, 45), and reason that an ordinarily skilled artisan would have been motivated to make the above-described modification to improve network security. Pet. 35; Ex. 1006 ¶ 147.

Regarding Samsung's contention that the GPRS attach procedure described by Bates reads on the "identify the manageable device" limitation, we observe that this contention is inconsistent with Samsung's reliance on the activate PDP context procedure as satisfying the "a request" for configuration data aspect of the claims (Pet. 33). Bates unambiguously identifies the GPRS attach procedure and activate PDP context procedure as separate procedures, and the corresponding GPRS attach request and activate PDP context request as separate requests. *Compare* Ex. 1003, 152 (describing GPRS attach procedure) *with id*. at 157 (describing activate PDP context procedure). For example, Bates explains that "[t]o exchange data packets with external packet data networks (PDNs) *after a successful GPRS attach, a mobile station must apply for one or more addresses used in the*

PDN . . . For each session, a so-called PDP context is created, which describes the characteristics of the session." *Id*. at 135 (emphasis added)).

As set forth in Part II.A., however, some portion of the recited "a request" for configuration data must be used in the claimed comparison of "at least a portion of the request" with the information for the identification of electronic devices of the at least one database. Accordingly, Samsung cannot properly rely on the GPRS attach request to satisfy the "the request" aspect of the "identify the manageable electronic device" limitation, given its previous reliance on the activate PDP context request to satisfy the "a request" for configuration data aspect of the claims.

Moreover, even setting aside the incongruity in the various requests it relies upon, Samsung has not demonstrated a reasonable likelihood that it will prevail in establishing that Bates' GPRS attach procedure discloses the "identify the manageable device" limitation. First, Samsung's reliance on the IMSI, i.e., international mobile *subscriber identity*, as satisfying the "identify the manageable *electronic device*" limitation is misplaced. Bates teaches that the IMSI is tied to the subscriber identity module ("SIM") card, and identifies the subscriber. Ex. 1003, 38. Bates explicitly contrasts the IMSI with the IMEI, i.e., international mobile equipment identity, which "uniquely identifies the mobile equipment," and explains that "[t]he IMEI and the IMSI are *independent*, thereby providing personal mobility." *Id*. (emphasis added). In addition, Bates characterizes the information present in the HLR as relating to "all *subscribers* registered in the network." *Id*. at 130 (emphasis added). Neither Samsung nor Dr. Reiher explains how the

subscriber identity, disclosed by Bates as being independent from the mobile equipment identify, satisfies the claim requirement to "identify the manageable electronic device by comparing at least a portion of the request with the information for the identification of electronic devices of the at least one database."

Second, neither Samsung nor Dr. Reiher identifies disclosure by Bates that the SGSN identifies the mobile station by comparing the IMSI, sent as part of the attach request, with information for the identification of electronic devices from the HLR. Indeed, the only support in Bates that Samsung identifies for this proposition is the teaching that the SGSN verifies whether a user is authorized and authenticated for a service "by *checking with* the HLR entry for the mobile station" (*id*. at 154 (emphasis added)). Pet. 34. Further, the portion of Bates Samsung relies upon as disclosing "at least one database communicatively coupled with the ACSM . . ." identifies "Subscriber ID, MSISDN, IMSI, current location (switch area), and subscription services chosen" as information contained in the HLR, but goes on to teach that "[w]hen a mobile station attempts to attach to the network, the HLR provides *subscription data* to the SGSN." Pet. 31–32 (quoting Ex. 1003, 130) (emphasis added). Moreover, Dr. Reiher's unsupported, conclusory testimony that the SGSN compares the "IMSI of the mobile station with identifying information for the mobile station obtained from . . . the HLR" (Ex. 1006 ¶ 145) is insufficient to cure the above-described deficiencies of Bates. 37 C.F.R. § 42.65(a).

Samsung's additional argument, that Bates' disclosure of the comparison by the SGSN of PDP type, PDP address, and APN values received from the mobile station as part of the activate PDP request with "its local subscribed values (this information exists locally because of the GPRS attach)" (Ex. 1003, 342) satisfies the "identify the manageable device" element of claim 1 (Pet. 35) is similarly unavailing. Neither Samsung nor Dr. Reiher offers any explanation as to how comparison by the SGSN of PDP type, PDP address, and APN values with "local subscribed values" stored by the SGSN that exist "because of the GPRS attach" discloses "comparing at least a portion of the request with the information for the identification of electronic devices of the at least one database." For example, neither Samsung nor Dr. Reiher explains what information the "local subscribed values" comprise, or how the "local subscribed values" disclose "information for the identification of electronic devices of the at least one database." Moreover, to the extent Samsung contends that the "local subscribed values" include the same PDP type, PDP address, and APN information sent as part of the activate PDP context procedure, Samsung has not identified support for the assertion that this information is sent to the SGSN in conjunction with the GPRS attach procedure.

Neither do we find persuasive Samsung's assertion that an ordinarily skilled artisan would have been motivated to "augment the Activate PDP context request to include equipment identification data (such as the IMEI of the mobile station), and modify the SGSN to compare the equipment data

with IMEI data found in the EIR," in order to improve network security. Pet. 35 (citing Ex. 1006 ¶ 47).

As an initial mater, we observe that neither Samsung nor Dr. Reiher describes how the activate PDP context request could be augmented to include equipment identification data, or how the SGSN could be modified to compare that equipment data with IMEI data "found" in the EIR. For example, neither Samsung nor Dr. Reiher identifies any teaching or suggestion in Bates that the EIR transmits the IMEI, or other equipment identification data, to the SGSN. Moreover, Samsung and Dr. Reiher do not identify any inadequacy in the security or authentication procedures disclosed by Bates, or explain how the proposed modification would improve on those procedures. Rather, Dr. Reiher simply concludes, without explanation or support, that such changes would have been possible and desirable. 37 C.F.R. § 42.65(a); *see also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Dr. Reiher's conclusory opinion is further undermined by the teachings of Bates. For example, Bates identifies "[t]he process of verifying the identity of the mobile station," i.e., "authentication," as an important step in the evaluation of a request by a mobile station to attach to an SGSN (Ex. 1003, 87), e.g., a GPRS attach request. Moreover, as discussed above,

Bates highlights the one-to-many relationship between the GPRS attach and the activate PDP context: "[a] single mobile station attaches to only one SGSN; however, it may have multiple PDP addresses that are all active at the same time . . . [each of which] may be anchored to a different GGSN." *Id*. at 89. The alterations proposed by Samsung would, thus, require comparison of the equipment identification information in the augmented activate PDP context request with the IMEI found in the EIR each time an activate PDP context procedure was performed, even though the underlying attachment of the mobile station and SGSN, established during the GPRS attach procedure, had not changed.

Each of these disclosures, therefore, indicates that even if modification of the SGSN to compare an augmented activate PDP context request that included equipment identification data with IMEI data found in the EIR were feasible, an ordinarily skilled artisan would not have had reason to make such modifications to the system disclosed by Bates.

Accordingly, we conclude that Samsung has not shown a reasonable likelihood of prevailing on its assertion that independent claims 1, 10, 12, and 15 are obvious in view of Bates.

"wherein the ACSMD is configured, responsive to receiving the request, to: identify the manageable electronic device . . . , and identify an ACS from the plurality of ACSs"

As set forth in Part II.A., above, we construe "wherein the ACSMD is configured, responsive to receiving the request, to: identify the manageable electronic device . . . , and identify an ACS from the plurality of ACSs," as

recited in claim 1, and the corresponding limitation of claim 15, to require that "the manageable electronic device and the ACS both are identified responsive to the ACSMD receiving a single request." Samsung identifies the activate PDP context procedure as disclosing the recited identification of an ACS. Pet. 36–37. Accordingly, to the extent Samsung relies on the GPRS attach procedure as disclosing the identification of the manageable electronic device recited in claims 1 and 15 (*see id*. at 34–35), such reliance is improper.

Conclusion

For the foregoing reasons, we conclude that Samsung has not shown a reasonable likelihood of prevailing on its assertion that claims 1, 2, and 10–16 are obvious in view of Bates.

C. Obviousness Grounds of Unpatentability Based on Bates and Barakat

Samsung asserts that claim 8 is unpatentable under § 103(a) as obvious in view of the combination of Bates and Barakat. Pet. 47–50. Claim 8 depends directly from claim 1. Samsung relies on the Reiher Declaration (Ex. 1006), as well as the Bennett Declaration (Ex. 1007) to support its positions.

KPN asserts that because Bates does not render obvious claim 1, dependent claim 8 is likewise nonobvious. Prelim. Resp. 26.

Overview of Barakat

Barakat discloses techniques for enhancing the performance of a mobile telephony network with respect to the availability and rate of information transmitted by making use of the public switched telephone network. Ex. 1004 ¶ 8.

Claim 8

Claim 8 recites "[t]he system according to claim 1, wherein the manageable electronic device is localized at a local area network (LAN), the local network being coupled to the network (WAN) over a signal carrier selected from a group comprising digital subscriber line (DSL), Fiber-to-the-curb, Fiber-to-the-home, cable TV network, Powerline, wireless transmission."

Because claim 8 depends from claim 1, and Samsung does not rely on Barakat for any teaching that would remedy the deficiencies discussed above with regard to claim 1, for the reasons set forth in Part II.B., we conclude that Samsung has not demonstrated a reasonable likelihood that it would prevail in establishing that the combination of Bates and Barakat renders obvious the system of claim 8.

Conclusion

For the foregoing reasons, we conclude that Samsung has not shown a reasonable likelihood of prevailing on its assertion that claim 8 is obvious in view of Bates and Barakat.

D. Obviousness Grounds of Unpatentability Based on Bates and Yla-Mella

Samsung asserts that claim 8 is unpatentable under § 103(a) as obvious in view of the combination of Bates and Yla-Mella. Pet. 51–52. Samsung relies on the Reiher Declaration (Ex. 1006), as well as the Bennett Declaration (Ex. 1007) to support its positions.

KPN counters that because Bates does not render obvious claim 1, dependent claim 8 is likewise nonobvious. Prelim. Resp. 26.

Overview of Yla-Mella

Yla-Mella is directed to techniques for cross-connecting transmission units disposed in a base station. Ex. 1005, 4:66-5:20.

Claim 8

Because claim 8 depends from claim 1, and Samsung does not rely on Yla-Mella for any teaching that would remedy the deficiencies discussed above with regard to claim 1, for the reasons set forth in Part II.B., we conclude that Samsung has not demonstrated a reasonable likelihood that it would prevail in establishing that the combination of Bates and Yella-Mella renders obvious the system of claim 8.

Conclusion

For the foregoing reasons, we conclude that Samsung has not shown a reasonable likelihood of prevailing on its assertion that claim 8 is obvious in view of the combination of Bates and Yla-Mella.

E. Obviousness Grounds of Unpatentability Based on Bates in view of the Admitted Prior Art

Samsung asserts that claim 9 is unpatentable under § 103(a) as obvious over of Bates, in view of the Admitted Prior Art. Pet. 52–55. Claim 9 depends directly from claim 1. Samsung relies upon the Reiher Declaration (Ex. 1006), as well as the Bennett Declaration (Ex. 1007) to support its positions.

Pertinent to this Decision, KPN counters that because Bates does not render obvious claim 1, dependent claim 9 is likewise nonobvious. Prelim. Resp. 38.

Overview of the Admitted Prior Art

Samsung identifies (Pet. 54) the following excerpt from the Specification of the '772 patent as Admitted Prior Art:

> For that reason, it is adversely required that each CPE must be pre-configured before installation at the location of the customer to specifically address the proper ACS in dependence of the combination of options above available to the customer. To address the proper ACS, it will be required to pre-program the CPE with either a specific IP address or a specific URL (uniform resource locator) for the dedicated ACS. Alternatively to pre-configuration of the CPE, configuration of the CPE may be done during installation either by service personnel or by the customer, but this may be time-consuming and/or may be sensitive to errors and mistakes.

Ex. 1001, 1:50–60.

Claim 9

Claim 9 recites, "[t]he system according to claim 1, where in the manageable electronic device has a default address for obtaining configuration data, the default address being an address of the ACSMD." Ex. 1001, 10:50–53.

Because claim 9 depends from claim 1, and Samsung does not rely on the Admitted Prior Art for any teaching that would remedy the deficiencies discussed above with regard to claim 1, for the reasons set forth in Part II.B., we conclude that Samsung has not demonstrated a reasonable likelihood that it would prevail in establishing that Bates, in view of the Admitted Prior Art, renders obvious the system of claim 9.

Conclusion

For the foregoing reasons, we conclude that Samsung has not shown a reasonable likelihood of prevailing on its assertion that claim 9 is obvious over Bates in view of the Admitted Prior Art.

F. Obviousness Grounds of Unpatentability Based on Bates and Bauchot, in view of the Admitted Prior Art

Samsung asserts that claim 9 is unpatentable under § 103(a) as obvious over Bates and Bauchot in view of the Admitted Prior Art. Pet. 56–59. Samsung relies upon the Reiher Declaration (Ex. 1006), as well as the Bennett Declaration (Ex. 1007) to support its positions.

Pertinent to this Decision, KPN reiterates its contention that because Bates does not render obvious claim 1, dependent claim 9 is likewise nonobvious. Prelim. Resp. 40.

Overview of Bauchot

Bauchot relates to the "synchronization of frequency hopping communication systems" (Ex. 1016, 1:8–10), and is particularly directed to solving synchronization problems encountered in operating a frequency-hopping based multicellular system. *Id*. at 1:28-32.

Claim 9

Because claim 9 depends from claim 1, and Samsung does not rely on either Bauchot or the Admitted Prior Art for any teaching that would remedy the deficiencies discussed above with regard to claim 1, for the reasons set forth in Part II.B., we conclude that Samsung has not demonstrated a reasonable likelihood that it would prevail in establishing that the combination of Bates and Bauchot, in view of the Admitted Prior Art, renders obvious the system of claim 9.

Conclusion

For the foregoing reasons, we conclude that Samsung has not shown a reasonable likelihood of prevailing on its assertion that claim 9 is obvious over the combination of Bates and Bauchot, in view of the Admitted Prior Art.

III. ORDER

In consideration of the foregoing, it is

ORDERED that the Petition is DENIED and no trial is instituted.

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