

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GENBAND US LLC and
GENBAND MANAGEMENT SERVICES CORP.,
Petitioner,

v.

METASWITCH NETWORKS LTD.,
Patent Owner.

Case IPR2015-01522
Patent 7,657,018 B2

Before JAMESON LEE, JOSIAH C. COCKS, and
ROBERT L. KINDER, *Administrative Patent Judges*.

COCKS, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

On June 26, 2015, Petitioner (“Genband”) filed a Petition (Paper 1, “Pet.”) to institute *inter partes* review of claims 1, 2, 7, 8, 10, 13, and 14 of U.S. Patent No. 7,657,018 B2 (Ex. 1001, “the ’018 patent”). Patent Owner (“Metaswitch”) did not file a Preliminary Response. We have jurisdiction under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a).

To institute an *inter partes* review, we must determine that the information presented in the Petition shows “a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). For the reasons set forth below, we conclude that the information presented in the Petition does not establish a reasonable likelihood that Genband will prevail with respect to any one of claims 1, 2, 7, 8, 10, 13, and 14 of the ’018 patent. Accordingly, we do not authorize institution of an *inter partes* review on the record before us.

B. Related Matters

The parties indicate that the ’018 patent is at issue in *Metaswitch Networks, Ltd. v. Genband US LLC*, No. 2:14-cv-744 (E.D. Tex.). Paper 1, 5; Paper 4, 2.

C. The '018 Patent

The '018 patent is titled “Method and System for Combining a Conversion Between Time-Division Multiplexed Digital Signals and Packetized Digital Signals with a Switching System Interface.” Ex. 1001, Title. The '018 patent explains that the “primary object” of the invention is as follows:

[T]o combine a conversion between time-division multiplexed digital signals and packetized digital signals with a switching system interface used to bypass the common control and switch matrix of a legacy class 5 digital switch, so that the combination can be used to convert and route calls between time-division multiplexed equipment, such as legacy line/trunk frames, DLCs, and a packet network.

Id. at 3:34–41.¹

¹ “DLCs” is an acronym for “digital loop carriers.” *Id.* at 1:43–44.

Figure 3 of the '018 patent is reproduced below:

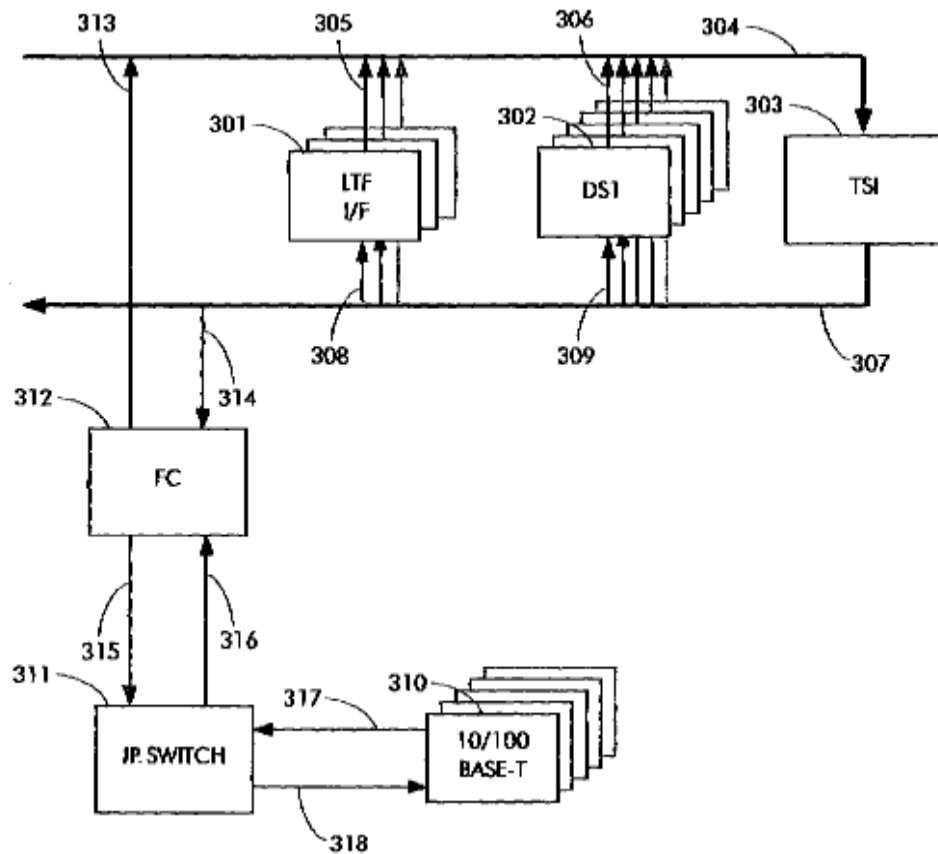


Figure 3 above illustrates “a switching system interface” of a preferred embodiment of the invention of the '018 patent. *Id.* at 4:50–54. The switching system interface includes line trunk interfaces 301, “DS1s”² 302, timeslot interchange function 303, Pulse Code Modulation (“PCM”) buses 304, 307, format converter (“FC”) 312, IP switch 311, and network interface cards 310. *Id.* at 5:46–6:10.

² We understand that “DS1s” refers to Digital Signal 1s.

Claims 1, 7, and 10 are independent. Claim 1 is reproduced below:

1. A switching system converter providing conversion between time-division multiplexed digital signals and packetized digital signals used to bypass a common control and switch matrix of a class 5 digital switch, the switching system converter comprising:

a switching system interface having means for bypassing a common control and switch matrix of a class 5 digital switch, the switching system interface having:

at least one network interface for terminating a digital transmission facility that is part of a network architecture;

at least one line/trunk interface, compatible with internal signals used to operate the line/trunk interface of the class 5 digital switching system; and

a switching means, connected to the network interface and to the line/trunk interface, for routing data between the network interfaces and the line/trunk interface; and

means for converting data between time-division multiplexed digital signals of a legacy line frame of a legacy line and packetized digital signals utilizing pulse code modulation (PCM) data transport.

Id. at 9:14–35.

Claim 7, drawn to a “switching system interface,” includes similar features as claim 1, but omits a requirement of PCM data transport. *Id.* at 10:10–28. Claim 10 is directed to a “method of combining time-division multiplexed digital signals and packetized digital signals with a switching system interface,” that generally corresponds to claim 7. *Id.* at 10:52–54.

D. Evidence Relied Upon

Genband relies on the following references:³

Reference		Date	Exhibit
Smith	U.S. Pub. No. 2003/0103614 A1	Jan. 5, 2003	Ex. 1005
Anderson	U.S. Patent No. 6,064,673	May 16, 2000	Ex. 1006

E. The Asserted Grounds

Genband asserts the following grounds of unpatentability:

Reference(s)	Basis	Claims Challenged
Smith	§ 102	7, 8, 10, 13, and 14
Smith and Anderson	§ 103	1 and 2

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1277 (Fed. Cir. 2015), *reh’g en banc denied*, 793 F.3d 1297 (Fed. Cir. 2015) (“It can therefore be inferred that Congress impliedly approved the existing rule of adopting the broadest reasonable construction.”) Even under the rule of broadest

³ Genband also relies on the Declaration of Seamus Gilchrist. Ex. 1007.

reasonable interpretation, claim terms also 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. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Furthermore, if the applicant for patent desires to be its own lexicographer, the purported definition must be set forth in either the specification or prosecution history. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

Here, there is no contention that any claim term has been given a special lexicographic definition. To that end, we do not discern that any term should be given a meaning beyond its ordinary and customary one. We discern, however, that certain claim terms are presented in a means-plus-function format. Claims written in such a format are “construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112, sixth paragraph⁴; *see Lockheed Martin Corp. v. Space Systems/Loral, Inc.* 324 F.3d 1308, 1318 (Fed. Cir. 2003).

Our Rules specifically require that the Petition identify the corresponding structure in proposing a construction for a means-plus-function claim limitation. Specifically, “[w]here the claim to be construed contains a means-plus-function or step-plus-function limitation, as permitted under 35 U.S.C. § 112 [¶ 6], the construction of the claim must identify the

⁴ Paragraph six of 35 U.S.C. § 112 was replaced with newly designated § 112(f) when § 4(c) of the America Invents Act (AIA), Pub. L. No. 112–29, took effect on September 16, 2012. Because the application resulting in the ’018 patent was filed before that date, we refer to the pre-AIA version of § 112.

specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function.” 37 C.F.R. § 42.104(b)(3). Furthermore, “structure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1334 (Fed. Cir. 2004) (citations and quotation marks omitted); *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 296 F.3d 1106, 1113 (Fed. Cir. 2002) (“the structure must not only perform the claimed function, but the specification must clearly associate the structure with the performance of the function”).

We focus on the requirement in each of claims 1 and 7 with respect to a “switching means.” More specifically, each of those claims requires at least one network interface, at least one line/trunk interface, and

a switching means, connected to the network interface and to the line/trunk interface, for routing data between the network interfaces and the line/trunk interface.

In conjunction with the above-noted feature, Genband urges the following:

In the related district court case, Patent Owner Metaswitch identifies the function as “routing data between said network interfaces and said line/trunk interface” and the corresponding structure as “PCM interface and/or line trunk manager module and equivalents thereof.” Metaswitch identifies the PCM interface as comprising line/trunk frame interfaces 201, DS1 interfaces 202, and timeslot interchange function 203. Here, Petitioner applies that construction to meaningfully discuss the invalidity of the claims in view of the prior art. The extent of any structure disclosed in the ’018 Patent for the timeslot interface 303 appears at 5:27–46; 6:11–32; FIGS. 2, 3.

Pet. 18–19.

None of the portions of the Specification of the '018 patent identified by Genband refers to either a “PCM interface” or a “line trunk manager module.” Genband also does not explain meaningfully why “line/trunk frame interfaces 201, DS1 Interfaces 202, and timeslot interchange function 203” are understood as forming the corresponding structure for the claimed “switching means.” Accordingly, we conclude that Petitioner has not explained adequately how these components operate “for routing data between the network interfaces and the line/trunk interface” (claims 1 and 7).

Furthermore, we also observe that, on its face, the premise that the claimed “switching means” includes the line/trunk frame interfaces and DS1 interfaces is logically unsound. To that end, claims 1 and 7 require that the “switching means” is “connected to the network interface and the line/trunk interface.” Such would indicate that the network interface and the line/trunk interface are not a part of or within the switching means. Genband offers no explanation as to how the network interface and line/trunk interface can at once be separate from or not a part of the switching means and also included in the switching means.

On the record before us, Petitioner has not demonstrated persuasively that the structure identified corresponds to the claimed function.⁵

⁵ We take note of a district courts’ determination in connection with this issue in the associated litigation involving the '018 patent styled *Metaswitch Networks, Ltd. v. Genband US LLC*, No. 2:14-cv-744 (E.D. Tex.). See “Claim Construction Memorandum and Order” 42 (“The Court therefore

B. Discussion

Genband contends that claims 7, 8, 10, 13, and 14 are anticipated by Smith, and that claims 1 and 2 are rendered obvious by Smith and Anderson.

1. Claims 1, 2, 7, and 8

As discussed above, each of claims 1 and 7 includes a means-plus-function recitation of a “switching means” for which Genband has not shown adequately where the ’018 patent discloses sufficient corresponding structure. That deficiency also carries forward to claims 2 and 8, which depend from claims 1 and 7, respectively. Because Petitioner has not adequately identified structure corresponding to the claimed switching means, Petitioner has not applied the prior art properly to those claims. Petitioner has not shown a reasonable likelihood that it will establish any of these claims as unpatentable.

Accordingly, we decline to institute a trial as to claims 1, 2, 7, and 8 based on the grounds of unpatentability on which Genband relies.

2. Claims 10, 13, and 14

Claim 10 is independent and drawn to a “method of combining time-division multiplexed digital signals and packetized digital signals with a switching system interface used to bypass the common control and switch matrix of a legacy class 5 digital switch.”⁶ Ex. 1001, 10:52–55. Unlike

hereby finds that for the ‘**switching means,**’ the claimed function is ‘routing data between the network interfaces and the line/trunk interface,’ and the specification fails to disclose sufficient corresponding structure.”) (Entered in this proceeding as Exhibit 3001.)

⁶ Claims 13 and 14 depend from claim 10.

claims 1 and 7, claim 10 does not recite any mean-plus-function requirement. Rather, as a part of the method, claim 10 recites various steps including a final step of “converting time-division multiplexed digital signals to packetized digital signals from the switching system interface.” *Id.* at 11:10–12. In accounting for that step as a part of its proposed anticipation ground, Genband points to various content of Smith at paragraphs 8, 54–57, 68, and 71, and Figure 6. Pet. 46–47. In reviewing that cited content, we discern that the term “time-division multiplexed digital signals” does not appear therein. Moreover, we observe that, of the cited portions of Smith, conversion is discussed in only two places, paragraphs 8 and 71. Those paragraphs are reproduced below:

“Media gateways” are packet switches that also convert the digital format of voice calls on trunks from legacy class 5 switches into the formats used in packet networks.

It will also be understood by one skilled in the art that conventional modem signal processing algorithms may be programmed into DSP section 912 for converting the analog modem tones represented in one or more PCM timeslots into digital packets, and vice versa.

Ex. 1005 ¶¶ 8, 71.

Paragraph 8 appears in the “Background” section of the ’018 patent and, as noted above, describes only that “media gateways” may be used to “convert the digital format of voice calls” into another format. Genband does not explain why that description constitutes the required conversion step of “time-division multiplexed digital signals” into packetized digital signals. Moreover, Genband also does not explain why the general

description of a technique in the “Background” establishes that Smith, itself, contemplates that particular conversion practice as a part of its disclosed invention. *See, e.g., Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008) (For anticipation, “[t]he [prior art] reference must clearly and unequivocally disclose the claimed [invention] or direct those skilled in the art to the [invention] without *any* need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference.” (quoting *In re Arkley*, 455 F.2d 586, 587 (CCPA 1972))). With respect to paragraph 71, Genband does not explain why the act of converting “analog modem tones” into digital packets equates to a conversion step applied to “time-division multiplexed digital signals.”

To establish anticipation under 35 U.S.C. § 102, each and every element in a claim must be found in a single prior art reference. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001). Here, we are not satisfied that Genband adequately explains where the required conversion of “time-division multiplexed digital signals” is found in Smith. Accordingly, we do not conclude that Genband’s Petition establishes a reasonable likelihood of prevailing on the ground that claims 10, 13, and 14 are anticipated by Smith.

III. CONCLUSION

We do not institute an *inter partes* review of any claim of the ’018 patent.

IV. ORDER

It is

ORDERED that Genband’s Petition is *denied*.

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For PETITIONER:

Chad C. Walters
Barton E. Showalter
Brian W. Oaks
Kathryn A. Juffa
BAKER BOTTS L.L.P.
chad.walters@bakerbotts.com
bart.showalter@bakerbotts.com
brian.oaks@bakerbotts.com
katie.juffa@bakerbotts.com

For PATENT OWNER:

Nicholas Transier
Ankur Garg
Ghazaly Imam
EIP US LLP
ntransier@eip.com
ptab-service@eip.com
gimam@eip.com