

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.,
Petitioner,

v.

UMBRA TECHNOLOGIES LTD.
Patent Owner.

U.S. Patent No. 11,146,632

Title: DATA BEACON PULSER(S) POWERED BY INFORMATION
SLINGSHOT

Inter Partes Review No.: IPR2024-00344

AUTHORIZED RESPONSE TO DIRECTOR REVIEW REQUEST

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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Pursuant to the Authorization dated August 12, 2025, Petitioner hereby provides a response addressing the issues raised by the Patent Owner (“PO”) in the Patent Owner’s Request for Director Review (“Request”).

I. INTRODUCTION

Claim 1 begins with the preamble “A network system *for providing data beacons*.” In the final written decision (FWD) (Paper 31), the Board found that the body of Claim 1 defines a structurally complete invention and uses the preamble only to state a purpose or intended use for the invention. FWD 21. PO’s Request rests entirely on the mischaracterization of the Board’s construction of the phrase “*for providing data beacons*” as an abuse of discretion. However, the FWD presents a detailed review of the parties’ respective arguments and demonstrates a studied and rational approach undertaken by the Board in arriving at a reasonable and considered construction based on the evidence and canons of claim construction.

Rather than pointing out the specifics of the alleged abuse, the Request largely rehashes arguments initially presented in the POPR (Paper 6) and PO sur reply (Paper 11) pre institution and in the POR (Paper 24) and PO Sur-Reply (Paper 26) during trial.

II. STANDARD

As acknowledged in the Request, “Requests for Director Review of a Board’s final decision under 35 U.S.C. §§ 135, 318, or 328, decisions granting rehearing of such a decision, or any other decision concluding a proceeding brought under 35 U.S.C. §§ 135, 311, or 321, shall be limited to decisions presenting (a) an abuse of discretion, (b) important issues of law or policy, (c) erroneous findings of material fact, or (d) erroneous conclusions of law.” Section 2.B. Director Review Process.

The Federal Circuit established that “[a]n abuse of discretion is found if the decision: (1) is clearly unreasonable, arbitrary, or fanciful; (2) is based on an erroneous conclusion of law; (3) rests on clearly erroneous fact finding; or (4) involves a record that contains no evidence on which the Board could rationally base its decision.” *Intelligent Bio-Systems, Inc. v. Illumina Cambridge, Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016).

The Request states that “[t]he Board’s holding in the FWD that claim 1’s preamble recitation of ‘a network system for providing data beacons’ is non-limiting—leading to a second finding that a reference completely silent as to data beacon functionality nevertheless invalidates the claims—is abuse of discretion based on erroneous findings of fact and conclusions of law.” Request 4. However, the Request provided no identification of erroneous findings of material fact nor

erroneous conclusions of law upon which an abuse of discretion could be based. The PO merely attempts to cast as error in fact and law the Board's weighing of the evidence regarding the claim language , the specification and the prosecution history. The Board's detailed discussion of the evidence and law that the Board considered in arriving at the construction at issue demonstrates the Request is meritless.

III. ARGUMENT

A. The Board's Finding That the Preamble Term "*Data Beacons*" Provided No Essential Structure Was Supported by Substantial Evidence and Is Reasonable.

Claim 1 recites:

[1.0] A network system for providing data beacons, comprising:

[1.1] a first node comprising a first read queue, a first write queue, and a first parallel file system;

[1.2] a second node comprising a second read queue, a second write queue, and a second parallel file system;

[1.3] wherein the first node writes first data from the first write queue to the second parallel file system; and

[1.4] wherein the second node reads the first data from the second parallel file system and places the first data in the second read queue.

In the eighty-two page FWD, the Board determined that the preamble’s recitation of *providing data beacons* was not tied to any of the structural limitations recited in the body of Claim 1 and was merely an intended use:

After considering Petitioner’s arguments (*id.*), we do not see how merely writing “first data” from the first write queue to the second parallel file system, as required by function [1.3], and merely reading the “first data” from the second parallel file system and placing the “first data” in the second read queue, as required by function [1.4], can *provide* data beacons, as required by preamble [1.0], because functions [1.3] and [1.4] merely transfer and store the “first data.” Ex. 1001, 23:8–12. Claim 1 is silent regarding how the “data beacons” are created or generated, so that they may be *provided* as required by preamble [1.0].

Therefore, we agree with Petitioner that the body of claim 1 defines a structurally complete invention and claim 1 uses the preamble only to state a purpose or intended use for the invention. Pet. Reply 10 (citing *Catalina Mktg.*, 289 F.3d at 808).

FWD 20-21.

The Request does not address the Board’s finding that the PO failed to explain how the limitations recited in the body of the claim *provide data beacons* as recited in the preamble. Instead, just like before the Board, the Request conflates the specification’s use of the term “data beacon pulser,” and the preamble’s use of the term “data beacon.” The Board specifically rejected the

PO's arguments that the specification's description of "data beacon pulser" provides essential structure for the preamble:

Patent Owner's admission (*id.*) that the "data beacons" preamble term refers to ***signals*** strongly favors Petitioner's claim construction, because a ***signal*** (comprised of *data* sent on a network) cannot be ***essential structure*** recited in the preamble, and the claims are silent regarding any mention of the "data beacon pulser" (structure) argued by Patent Owner that is described in the '632 patent specification. *See* PO Resp. 20 (emphases added).

FWD 12-13.

B. The Specification Fully Supports the Board's Finding

The term "data beacons" is recited in the preamble but is not defined in the specification. The term "data beacon" appears in the '632 Patent apart from the term "pulse(r)" only twice outside of claim 1: (1) in the Abstract: "Systems and methods for providing data beacons are disclosed" (Ex. 1001, Abstract), and as identically described, (2) in the Summary of the Disclosure: "Systems and methods for providing data beacons are disclosed." Ex. 1001, 7:30–31.

In the Request, the PO's citations to the Specification of the '632 Patent are describing "data beacon pulsers" powered by a technology the patent calls "Information Slingshot", and do not describe data beacons. EX-1001 1:29-37 ("DBP offers fast, efficient, and dependable one way casting/multicasting of information globally..."); 5:21-51 ("It provides advantages over the current state of the art such as UDP oneway multi-casting vs DBP utilizing slingshot...");

10:21-27(“DBP is essential where complete information needs to be up to date and reliable, and available rather than bits and pieces of packetized streams of data....”) POR 20-21. The Board acknowledged and considered the Specification’s discussions of data beacon pulsers and the benefits brought to their attention by the PO. The Board discussed the descriptions of a data beacon pulser in the Background of the invention section and the key benefits of using data beacon slingshot, extensively citing to the ’632 patent at 1:29–37, 2:54–57; 4:6–19; 6:1–5 and 6:29–42. But the Board also noted “the ‘data beacon pulser’ described in the ’632 patent specification is not the same as the claim 1 preamble recitation of the term ‘*data beacons*.’” FWD 14.

Although the Request repeatedly asserts that the preamble provides not merely a recitation of circumstances where the system may be useful but rather “the *raison d’etre*” [i.e., the most important reason for being] of the claimed system itself” (Request at 4), it is clear that the Specification is describing the features of a data beacon pulser using Slingshot as advantageous over the prior art.

The Request fails to provide any evidence that ties the benefits of a data beacon pulser powered by Slingshot technology to the recited claims. For example, the Request asserts that the Board ignored some of the disclosure included in Figure 13 directed to timing information related to Slingshot. Request 6. However, the claims include no limitations relating to any kind of timing. To

the extent that timing was relevant to the Challenged Claims, the PO had the opportunity to amend the claims to include the specific timing requirements it asserted that the Board ignored. This is particularly true here, where the PO argued before the Board that a “data beacon” is a fundamental characteristic of the claimed network system, and that the inventors “intended that the claims encompass only improved data beacon delivery systems having certain features recited in the body of the claim.” POR 23-27. In response, the Board stated that “the inventor’s ‘intent’ is not a recognized legal basis for importing limitations into the claims. Instead, the Patent Owner had the opportunity to effectuate the intent of the inventors by proposing claim amendments to the present claims in this proceeding and chose not to do so.” FWD 52. Thus, the Board properly concluded that the PO was attempting “to read limitations from the ’632 patent’s specification into the claims.” *Id.*

C. The Board Properly Considered the Prosecution History

The PO is also wrong that the Board erroneously dismissed the prosecution, specifically that “for providing data beacons” was identified as an element of the Examiner’s search strategy and cited in the Examiner’s stated reason for allowance, indicating it was a basis for distinguishing over the prior art. Request 13. The Examiner’s consideration that a “data beacon pulser” is “the technology upon which the invention is based” and related statements about a search for “data beacon” and “pulse” in the same paragraph hardly compels the PO’s conclusion that the preamble’s recitation of “data beacons” is the “basis of the invention.” *Id.* at 13-14. Instead, the Notice of Allowance clearly states that the distinguishing features relied upon by the Examiner were, instead, those features recited in the body of the claim. In particular, with respect to the references found via an additional exploratory search related to the technology discussed in the Specification, the Examiner stated, “However, those references deal with mobile networks, and do not disclose any information about **read queues, write queues, or parallel file systems**” (EX-1002 p. 10 (emphasis added)), which are the actual limitations recited in the body of claim 1. This statement clearly demonstrates that the Examiner found that the claimed invention was distinguishable from the prior art based on limitations recited in the body of the claims and not the preamble as asserted in the Request.

The Board also considered that unilateral remarks by the Patent Examiner “will not necessarily limit a claim” and an applicant’s silence regarding statement made by the examiner during prosecution without more, cannot amount to a ‘clear and unmistakable disavowal’ of claim scope.” *Salazar v. Proctor & Gamble Co.* 414 F.3d 1342,1345. The Board also noted that because of the first action allowance with no back and forth communications between the applicant and Examiner, little weight was accorded to Examiner’s statements. FWD 18. The Board’s consideration of the prosecution history was both supported and reasonable.

D. The Board Properly Considered the Claim Structure

The Board noted that the lack of an antecedent bases weight strongly in favor of the preamble being “an intended use and not limiting.” FWD 12.

The body of Claim 1 fully and intrinsically sets forth all of the limitations of the claimed invention. In other words, the limitations in the body of Claim 1 do not rely upon and derive antecedent basis from the “data beacons” language recited in the preamble of claim 1. Moreover, “data beacons” recited in the preamble is not a necessary component, it does not provide “essential structure or steps” and it is not “necessary to give life, meaning, and vitality to the claim.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002). Instead, the preamble merely states the purpose or intended use of the invention, e.g., “for

providing data beacons,” rather than any distinct definition of any of the claimed invention’s limitations, and thus, the preamble is not considered a limitation and is of no significance to claim construction. MPEP 2111.02 II.

While the PO argues that “for providing data beacons” is inextricable linked to “network system” and cannot be split (Request 9-10), this argument was not before the Board and is thus waived. Nonetheless, the PO’s reliance upon *Xencor* is unfounded. In *Xencor*, unlike the present case where an intended use is clearly articulated, the claim preamble states a “method of treating a patient by administering an anti-C5 antibody comprising”. The Federal Circuit found the whole of the preamble in *Xencor* was needed by a person of skill “to make sense of the scope of the claim” and further “informs the meaning of the claim language.” *In re Xencor, Inc.*, 130 F.4th 1350, 1359 (Fed. Cir. 2025) Neither of these rationales are present or proposed in the present case.

IV. CONCLUSION

The PO has not demonstrated the Board's finding that the body of Claim 1 defines a structurally complete invention and uses the preamble only to state a purpose or intended use for the invention was an abuse of discretion and thus the request for director review should be denied.

August 19, 2025

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CERTIFICATION OF SERVICE ON PATENT OWNER

Pursuant to 37 C.F.R. §§ 42.6(e), the undersigned certifies that on August 19, 2025, a complete and entire copy of Authorized Response to Director Review Request, was served by P-TACT system as well as by electronic mail to the Patent Owner's counsel at the following email addresses:

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