

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EARLY WARNING SERVICES, LLC,

Petitioner

v.

INTELLECTUAL VENTURES II, LLC,

Patent Owner

Inter Partes Review No.

IPR2024-01221

U.S. Patent No. 7,314,167

REPLY TO PATENT OWNER PRELIMINARY RESPONSE

I. “Embedded” should be accorded its plain and ordinary meaning.

PO argues the termed. “embedded” describes “information in the image that is *hidden* in the image and used to *provide security* for the transaction.” According to PO, this construction excludes conventional barcodes since the information can be decoded by a barcode scanner.¹ POPR at 34, 46-47 (emphasis added). PO’s construction is incorrect and improperly adds two limitations (“hidden” and “provides security”) to the term “embedded,” both of which add ambiguity rather than clarify the term. For example, how hidden is hidden? And what degree of security is required? More importantly, PO’s proposed construction is legally incorrect and at odds with the plain and ordinary meaning. Ex. 1036 at ¶¶ 1-5.

The words of a claim “are generally given their ordinary and customary meaning as understood by a [POSA] when read in the context of the specification and prosecution history.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). There are two exceptions: (i) when there is a definition, or (ii) there is a “clear and unmistakable disclaimer” of subject matter.

¹ Contrary to PO’s argument, PO’s construction of “embedded” reads on conventional barcodes, which contain hidden information that require barcode readers to decode (a level of security). For this reply, however, Petitioner understands PO’s position to be that “hidden” requires some level of encryption.

Id. at 1365, 1367. Neither applies here. As such, no construction is required, and the plain and ordinary meaning should control. Ex. 1036 at ¶ 6.

The plain and ordinary meaning reflects how a POSA would interpret the term in light of the specification and prosecution history. Although “hidden” appears in the Background, it appears *nowhere* in the ’167 patent’s description of the alleged invention and should have no bearing on the interpretation of “embedded.”² It is similarly unnecessary to weave the “provide security” limitation into the claims when that feature is already recited in the claims (“secure transaction”) *and* satisfied by other claim limitations, e.g., the “verify the user” step. Thus, the specification does not support PO’s construction. *Id.* at ¶ 7.

Instead, the ’167 patent specifically refers to information embedded in 1-D and 2-D barcodes—the exact type of barcodes relied on in Grounds 1-6. Ex. 1001 at 5:21-29, 51-52; 6:49; 10:33-36; 11:61; 13:46-49; claims 7-10; Ex. 1036 at ¶ 8. Also, several embodiments in the ’167 patent describe embedded information without any mention of encryption or security measures. Ex. 1001 at 13:43-50; 14:8-15; Ex. 1036 at ¶ 10. Lastly, the ’167 patent mentions the *optional* use of encryption. *See, e.g.*, Ex. 1001 at 5:50-60 (“The information embedded...*may be*

² It is telling that PO resorted to modifying the patent’s figures in its POPR to explain how “embedded” allegedly is limited to hidden information. POPR at 10.

created using...decryption/encryption algorithms....”); 7:1-5 (“***If*** the image...has been generated using an encryption or decryption algorithm....”); 9:20-23 (“The embedded information ***might be*** encrypted....”) (emphasis added). Characterizing a feature as optional weighs *against* limiting claims to that optional embodiment. *See Cadence Pharms. Inc. v. Exela PharmSci Inc.*, 780 F.3d 1364, 1369 (Fed. Cir. 2015) (indicating features introduced with “may be” were non-limiting). As such, the intrinsic evidence supports that the plain and ordinary meaning of “embedded” includes information contained in *any* barcode, regardless of whether it is encrypted or “hidden” or provided for any purpose. Ex. 1036 at ¶ 9.

The doctrine of claim differentiation also precludes PO’s assertion that “embedded” refers to hidden, i.e., *encrypted*, information. Under this doctrine, a dependent claim is necessarily narrower than its independent claim. Here, dependent claims 3 and 25 recite a “decryption algorithm” to decode “embedded” information. As such, independent claims 1 and 23, from which claims 3 and 25 depend, respectively, should be construed more broadly to cover embodiments *not* employing encryption/decryption, e.g., unhidden information. *Id.* at ¶ 11.

Although unnecessary to resolve the issue, the extrinsic evidence also supports this conclusion. The prior art uses the term “embed” in reference to information contained in conventional barcode technology. *See, e.g., Id.* at ¶¶ 12-19; 1037 at 1 (“two-dimensional barcodes are used in applications that require

more information to be *embedded*....”); 1038 at 1 (the “elements of bar coding...[include] data format, which refers to the *embedded* data....”); 1039 at 2 (“a method for *embedding* digital data in documents as diagonal marks....”); 1040 at 46 (the “process may visibly *embed* additional information using a one- or two-dimensional barcode.”); 1041 at 10 (“the *embedded* information may be included in a...barcode....”); 1042 at 181 (“price or weight of an item is *embedded* into the barcode...”). Each reference uses the term “embedded” consistently with how the ’167 patent uses the term—as *any* information derived from a barcode, whether encrypted, unencrypted, hidden, or unhidden and provided for any purpose. Thus, contrary to PO’s contention, “embedded” is not a “term of art” limited to hidden information used for security purposes. Ex. 1036 at ¶19; POPR at 38.

PO’s attempt to *narrow* the claims based on extrinsic evidence despite the patent’s clear use of the term “embedded” is legally improper. *See Seabed Geosolutions (US) Inc. v. Magseis FF LLC*, 8 F.4th 1285, 1290 (Fed. Cir. 2021) (reversing a PTAB decision for improperly limiting a claim based on extrinsic evidence); *Profectus Tech. LLC v. Huawei Techs. Co.*, 823 F.3d 1375, 1380 (Fed. Cir. 2016) (“Extrinsic evidence may not be used ‘to contradict claim meaning that is unambiguous in light of the intrinsic evidence.’”) (citation omitted). Instead, when considering the totality of intrinsic and extrinsic evidence, the plain and ordinary meaning of “embedded” includes any barcode information. Ex. 1036 at ¶¶

20-21.

In view of the foregoing, the Board should reject PO's narrow interpretation of "embedded." Under its plain and ordinary meaning, the term "embedded" includes any information contained in barcodes, which is consistent with (i) the '167 patent's recitation of information contained in barcodes, (ii) the optional use of encryption, and (iii) the extrinsic evidence.

II. Petitioner's citations to Ex. 1006 in Ground VI.

Rather than allege that Ex. 1006 does not disclose the use of passwords (it does), PO instead alleges that, as a technicality, the claim mappings "are deficient." PO's position is untenable.

First, Petitioner's citation to p. 24 of Ex. 1006 is accurate. Bates page 24 does refer to the use of passwords, consistent with the claim mapping. Second, Petitioner quotes Ex. 1006 for stating "Requires a password to see any data...." and includes a citation to "Ex. 1006 at 129." (Pet. at 66). A quick text search of Ex. 1006 shows that the quoted text is instead found on document page 121 (Bates page 61). Thus, the clerical error is readily apparent and easily remedied. From this correlation, a reader would appreciate that all citations to p. 129 of Ex. 1006 were intended to refer to p. 121. The PTAB has routinely addressed and corrected obvious clerical errors, and similar treatment is respectfully requested here. *See, e.g.,* IPR2023-0199, Paper 56, at 30 n.12; IPR2023-01202, Paper 10, at 16 n.4.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on the date below a copy of this **Reply to Patent Owner's Preliminary Response, Petitioner's Updated Exhibit List, and Exhibits 1036-1042** have been served by email upon the following:

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