

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GOOGLE LLC,  
Petitioner

v.

GEOSCOPE TECHNOLOGIES PTE. LTD.  
Patent Owner

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Case No. IPR2023-01213  
Patent 9,097,784

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**PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE**

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## **I. INTRODUCTION**

Petitioner submits this Reply to Patent Owner's Response (Paper 19, "POR").

Patent Owner's sole argument is that Crane "has no teaching or suggestion of 'determining from said status a most likely one of said plural streets upon which said wireless device is located.'" POR, p. 1. This argument was previously considered and rejected by the Board in its Institution Decision. ID. at pp. 29, 30, and 33. Patent Owner does nothing in its Response to warrant a different outcome.

Patent Owner's entire case rests on recycled arguments from its failed Preliminary Response. Patent Owner waives any argument not presented in the POR. Paper 15, at p. 9 ("Patent Owner is cautioned that any arguments not raised in the response may be deemed waived."). The Challenged Claims of the '784 Patent are therefore unpatentable.

## **II. CLAIMS AT ISSUE AND STATEMENT OF THE PRECISE RELIEF REQUESTED**

The Board instituted review of Claims 1, 2, 10-13, 21, and 22 ("Challenged Claims") of the '784 Patent in this IPR. ID., p. 33. As the Board correctly notes, Patent Owner does not dispute Petitioner's arguments directed to the unpatentability of dependent Claims 2, 10, 11, 13, 21, and 22. *See inter alia* POR and ID at pp. 32-33. Petitioner therefore deems Patent Owner to have waived all arguments except for a single assertion regarding the remaining Claims 1 and 12. Even this single remaining assertion has already been resolved by the Board's finding in Petitioner's

favor. Petitioner requests the Board to hold the Challenged Claims unpatentable based on its prior finding and the substantial evidence repeated herein.

### **III. THE BOARD ALREADY REJECTED PATENT OWNER'S ARGUMENTS WITH RESPECT TO CRANE'S DISCLOSURE**

In its POR, Patent Owner recycled its Patent Owner Preliminary Response (Paper 10, "POPR") argument that "the system of Crane uses a status as part of determining whether the device is on a street at all." *Compare* POPR at pp. 26-27 and POR at pp. 1-2. This argument was already considered and rejected by the Board. *See* Paper 2, "Pet" at 33-35. The POR does nothing to rehabilitate Patent Owner's failed argument.

Additionally, based on review of the Petition, the Board provided insight regarding Crane's teaching of determining from said status a most likely one of said plural streets (*i.e.*, the actual road) upon which said wireless device is located:

Crane teaches that its system calculates "a distance 270 between each of the locations 130 of the phone and the straight dashed lines 266 which represent roads." Ex. 1004, 4:17-22. The Crane system then determines "the *actual* road" if "the distances 270 are sufficiently small." *Id.* at 4:20-22 (emphasis added). These passages are sufficient to support that Crane teaches determining a most likely one of said plural streets upon which said wireless device is located.

\* \* \*

Crane teaches first determining, based on whether the cellular phone “is moving” (in other words, information regarding the movement of “status”), that the cellular phone is inside of a vehicle traveling along a road. Ex. 1004, 4:4-8. The Crane system combines this status information with a calculation of what road is nearest to determine an “actual road.” *Id.* at 4:1-22. Thus, Crane teaches determining “from said status” which actual road the phone is located on. The status is part of the total process that makes the determination.

Crane teaches using location information to determine which actual road the phone is located. *Id.* at 4:17-22.... Thus, on the present record, Petitioner has adequately established that Crane teaches or suggests this claim recitation.

*Id.* at pp.29-30.

Patent Owner in its Response *did not cite to or refute* the Board’s understanding of Crane on pages 29-30 of the Institution Decision, reproduced above. Patent Owner merely restated that “the Board preliminarily found that ‘[t]he Crane system then determines ‘the *actual* road’ if the ‘the distances 270 are sufficiently small,’ and that this is ‘sufficient to support that Crane teaches determining a most likely one of said plural streets upon which said wireless device is located.’ POR at

p. 2. As such, Patent Owner has waived any arguments that counter these sections of the Board's Decision.

**IV. CRANE DISCLOSES “DETERMINING FROM SAID STATUS A MOST LIKELY ONE OF SAID PLURAL STREETS UPON WHICH SAID WIRELESS DEVICE IS LOCATED”**

Patent Owner asserts that Crane does not teach or suggest “determining from said status a most likely one of said plural streets upon which said wireless device is located” as recited in Independent Claims 1 and 12. POR at p. 1. Patent Owner asserts that “Crane is only directed to determining whether a device is located on one of a ‘plurality of roads 152’ ... and is indifferent to which road the device is located on.” POR at p. 4. Patent Owner is wrong.

Crane's technique determines “*the actual road*” that the cellular phone is on. EX1004, 4:20-22 (“If the distances 270 are sufficiently small, the cellular phone can be assumed to be in a vehicle traveling along the actual road.”). Crane discloses that “if *the acquired cellular position data* 140 indicate that the cellular phone is on or within a certain threshold distance of *the position* of a road 152”, “the cellular phone can be assumed to be inside of a vehicle traveling along *the road*.” *Id.*, 4:4-9 (emphasis added). *See also* Pet. at pp. 33-34 and EX1008 at ¶¶150-151. Clearly, Crane is not merely interested in determining whether the device happens to be on one of many roads without specifying the actual road, as Patent Owner contends.

Rather, Crane expressly discloses determining “the actual road” the cellular phone is on. EX1004, 4:20-22.

Patent Owner proposes a narrow reading of Crane that is inconsistent with the Board’s ID and the totality of Crane’s disclosure. In its POR, Patent Owner asserts that “Crane makes clear that its system does *not* differentiate between streets, and is only able to determine whether a mobile device is on a street at all.” POR at p. 2. However, Patent Owner does not submit any expert testimony to explain or support its assertion. Patent Owner’s argument is mere attorney argument unsupported by any meaningful explanation of the prior art at issue. Patent Owner submits no evidence or expert testimony responsive to the testimony of Petitioner’s expert, David Hilliard Williams. Patent Owner did not even seek to cross-examine Petitioner’s expert or provide any expert testimony of its own.<sup>1</sup>

Patent Owner’s argument in its POR regarding Crane boils down to an assertion that “Crane does not use ‘152’ in its figures to refer to a single street, but rather ‘a plurality of roads 152 that form a road network 155 in the geographic area 100.’” POR at p. 3. Patent Owner relies on Figures 3 and 6 and one citation in Crane

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<sup>1</sup> This is despite having an expert testify in related proceedings IPR2023-01209, IPR2023-01210, IPR2023-01211, and IPR2023-01212.

to support its narrow interpretation that “Crane uses ‘152’ to depict two *different* streets.” EX1004 at 3:33-36. POR at pp. 3-4. But Patent Owner misapprehends Crane’s disclosures.

First, Figures 3 and 6 of Crane are exemplary embodiments described in sections titled “Example with Single Phone” and “Embodiments with Plurality of Phones.” EX1004, 3:15 and 5:5. Thus, Crane makes clear that the disclosure in these sections are non-limiting exemplary embodiments. *See also* EX1004, 8:19-20 (“It is intended that the foregoing detailed description be regarded as illustrative rather than limiting.”). Patent Owner’s reliance on references to the “152” label in these Figures is a misplaced narrow and erroneous interpretation of Crane.

Second, a complete, accurate read of Crane makes clear that Crane discloses a system that uses a status as part of “determining [the] *most likely* one of said plural streets upon which said wireless device is located” as claimed. *See, e.g.*, EX1004, 2:23-34 (“To address these and other objectives, the present invention comprises a method and system that matches the positions of one or more cellular phones, or other types of wireless phones, to data indicating the *locations of roads* in a geographic area to derive data about phones located in vehicles *traveling along the roads* [emphasis added].”). Crane’s “Summary of the Invention” (quoted above) describes “phones located in vehicles traveling along [] roads”—not merely whether a phone device is on a street at all, as the Patent Owner illogically alleges. Crane’s

system “matches the positions of one or more cellular phones ... to data indicating the locations of roads [*i.e.*, streets],” thereby determining a most likely one of said plural streets upon which said wireless device is located. Crane logically matches a wireless phone[s]/vehicle location with the most likely street upon which the wireless phone[s]/vehicle is traveling. Thus, as recognized in the Board’s ID, Patent Owner’s assertion that “[t]he Crane system is indifferent to which road the device is located on” is illogical and incorrect. *See, e.g.*, POR at p. 4; ID at p. 29.

Third, Patent Owner disingenuously misinterprets the “152” label in Crane to incorrectly argue that Crane only discloses whether a phone is located on any road “152.” As indicated in the Petition and as correctly understood by the Board, “Crane teaches using location information to determine which **actual road** [among the roads 152] the phone is located on. [EX1004] at 4:17-22.” Petition at pp. 33-35 and ID at p. 29 (emphasis added). Label “152” is not only referenced in Figures 3 and 6 and at 3:33-36 of Crane (as cited by the Patent Owner), it is also explicitly referenced in connection with Figures 4 and 5 and at 3:38-40, 3:43-48, 3:52-55, 3:59-63, and 4:4-14. Notably, column 4, lines 4-14 of Crane state that “if the acquired cellular position data 140 indicate that the cellular phone is on or within a certain threshold distance of the position of **a road 152** or is moving, the cellular phone can be assumed to be inside of a vehicle traveling along **the road** [emphasis added].” Thus, at least column 4, lines 4-14 of Crane and this reference to label “152” disclose

determining a most likely one of said plural streets upon which said wireless device is located as confirmed by the uncontested testimony of Petitioner's expert, David Hilliard Williams. EX1008, ¶¶147-152.

Crane clearly discloses "determining from said status a most likely one of said plural streets upon which said wireless device is located" as recited in independent Claims 1 and 12 of the '784 Patent. The Board's findings regarding the unpatentability of all Challenged Claims based on the substantial evidence presented in the Petition as supported by the expert declaration of David Williams should stand.

## **V. CONCLUSION**

Petitioner has satisfied its burden of presenting uncontested substantial evidence to demonstrate that the combination of teachings from Spain and Crane is proper, and that this combination teaches and suggests each limitation of all Challenged Claims of the '784 Patent. Patent Owner has waived any argument to the contrary. The Board should confirm the unchallenged rationale of its ID to find all Challenged Claims of the '784 patent unpatentable.

Date: September 11, 2024

Respectfully submitted,

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APPENDIX A – LIST OF EXHIBITS

| <b>Exhibit No.</b> | <b>Description</b>                                                                      |
|--------------------|-----------------------------------------------------------------------------------------|
| 1004               | U.S. Patent No. 6,381,533, issued on April 30, 2002 to A. Crane <i>et al.</i> (“Crane”) |
| 1008               | Declaration of David Hilliard Williams                                                  |

CERTIFICATE OF COMPLIANCE WITH 37 C.F.R. §42.24

The undersigned hereby certifies that the foregoing Reply totals 1,825 words, excluding the parts which are exempted by 37 C.F.R. §42.24(a)(1).

Date: September 11, 2024

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this 11<sup>th</sup> day of September, 2024, a true and correct copy of the foregoing **PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE** is being served by electronic mail to Patent Owner's counsel as follows:

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