

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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BMW OF NORTH AMERICA, LLC,  
Petitioner,

v.

NORTHSTAR SYSTEMS LLC,  
Patent Owner.

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Case IPR2023-00890  
Patent No. 8,032,297

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

On September 15, 2023, the Board authorized Petitioner to submit a seven page reply addressing Patent Owner's request for discretionary denial under 35 U.S.C. § 314(a) and Patent Owner's construction of "OVI." Ex. 3001.

**I. PETITIONER'S SOTERA STIPULATION REMOVES OVERLAP**

Under the Interim Procedure, "the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB." Interim Guidance, 3. BMW AG, defendant in the district court litigation and real party-in-interest in this proceeding, has stipulated that if the Board institutes IPR on this Petition, it will not pursue in the related district court proceeding, *NorthStar Systems LLC v. Bayerische Motoren Werke AG*, 2:22-cv-00496 (EDTX), "any ground that [Petitioner] raised or reasonably could have raised" during this proceeding. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18-19 (PTAB Dec. 1, 2020); 35 U.S.C. § 315(d); Ex. 1018.<sup>1</sup>

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<sup>1</sup> Validity is not at issue in *BMW of North America, LLC v. NorthStar Systems LLC*, 6:23-cv-00456 (WDTX), where Petitioner currently seeks a declaratory judgment of noninfringement.

## **II. THE BOARD SHOULD REJECT PATENT OWNER’S CLAIM CONSTRUCTION OF “OVI”**

Claim 1 recites an “OVI[,]” “computing a placement position of an OVI referencing the MO on the map-display application;” and “creating the OVI containing the distance and travel-related information.” Ex. 1001, 17:32-35. Patent Owner provides a much too narrow construction of “OVI,” attempting to improperly read-in three limitations from the specification—1) requiring the OVI to contain a “Euclidian vector”; 2) requiring calculation of placement and distance of an OVI with respect to a particular point; and 3) requiring distance and travel-related information be displayed inside the OVI.

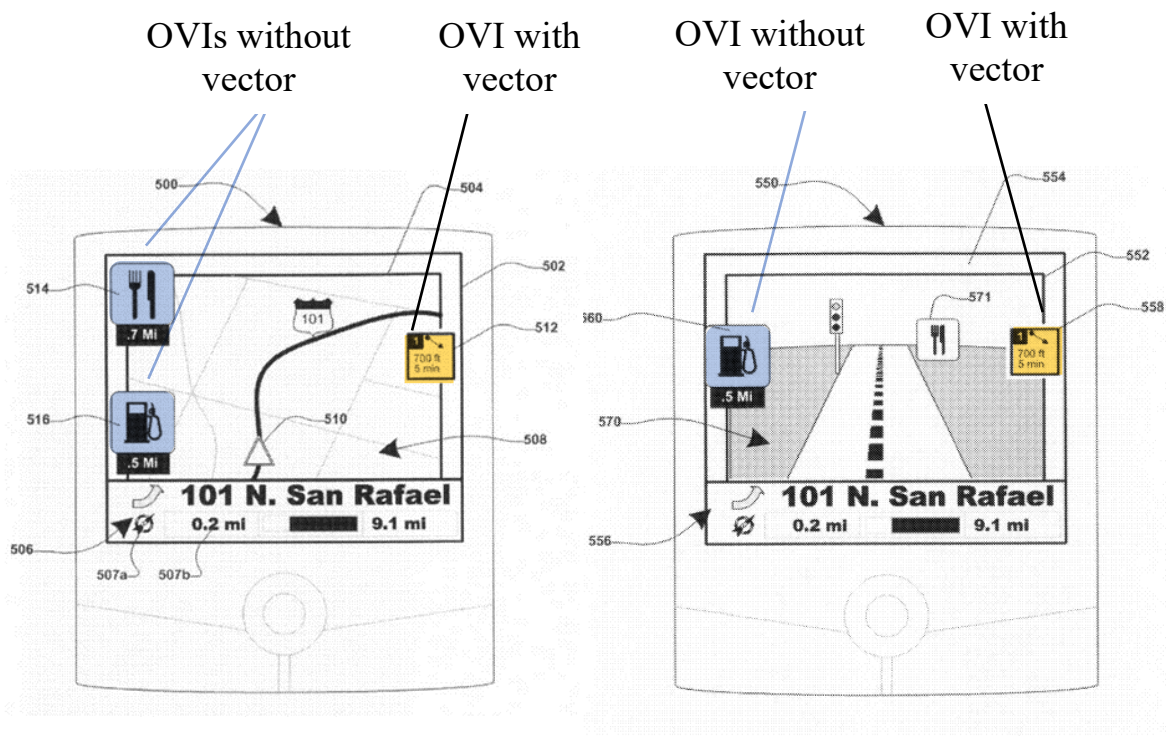
### **A. An OVI Need Not Display a “Euclidian Vector”**

Patent Owner incorrectly asserts that the claimed OVI must graphically indicate “the magnitude of distance and direction” as a “Euclidian vector,” which requires “that there is some magnitude and direction associated with the indicator.” POPR at 11, 13. This is inconsistent with the claims and specification.

The independent claims specifically define the claimed contents of the OVI—“distance and travel-related information.” There is no mention of a Euclidian vector with magnitude and direction components. And the specification never equates the term “OVI” with Euclidean vector. *See generally*, Ex. 1001 (devoid of any mention of a Euclidean vector). Tellingly, the specification never uses the term “Euclidian vector” at all, and Patent Owner does not cite anything in

the specification supporting its contention that the two terms are synonymous. *See generally* POPR.

To the contrary, the '297 patent describes several OVIs that do not include a “vector” i.e., an arrow. Figure 5A illustrates OVIs 512, 514, and 516, although only 512 has a vector. Ex. 1001, 9:43-47. Figure 5B illustrates OVIs 558 and 560, although only 558 includes a vector. Ex. 1001, 10:20-23.



Ex. 1001, Figs. 5A, 5B (annotated).

With respect to Figure 5A, the specification explains that in a “preferred embodiment of this invention, OVIs 512, 514, and 516 may be displayed by the map-display application.” *Id.*, 9:43-47. And with respect to Figure 5B, the specification similarly explains that “OVIs 558 and 560 may be displayed by a

map-display application 556, to indicate MOS not visible on the graphic 570 (i.e. outside the field-of-view of the user/driver.).”

Patent Owner’s construction is unduly narrow because it reads-out OVIs 514 and 516, which are part of a “preferred embodiment,” as well as OVI 560. And even if the construction were to apply to some other embodiment, the Federal Circuit has repeatedly “cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification.” *Lowe v. ShieldMark, Inc.*, 2022 WL 636100 (Fed. Cir. 2002) (citing *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1328 (Fed. Cir. 2002) (quoting *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998))). So long as a displayed OVI includes “distance and travel-related information,” as required by the claims, it meets this limitation under its plain and ordinary meaning.

**B. An OVI Need Not Be “Particular” with “Respect to a Point”**

Patent Owner also incorrectly argues that the placement of the claimed OVI must be “particular” with respect to “a point on the map,” POPR, 9-11, 13. This is inconsistent with the claims and specification.

The claims simply require “computing a placement position of an OVI referencing the MO on the map-display application;” and “creating the OVI containing the distance and travel-related information.” The claims make no mention of any specific means or method for performing the calculations for

placement or distance. And the specification discloses several embodiments. Patent Owner focuses on two embodiments—which refer to Figure 2 and provide specific details for calculating and displaying a vector. POPR, 11-12.

But as explained in the preceding section, the vector embodiment is only one disclosed option. Figures 5A and 5B also displays OVIs 514, 516, and 560 that do not include a vector. Regarding Figure 5B, the specification explains that the display location of the OVI is “computed” (calculated) to generally indicate the location of the point of interest (map object MO) relative to the current position of the user. Ex. 1001, 10:23-42. Accordingly, because “the top of the display frame 552 may be considered ‘in front’; the left and right sides of the display frame 552 may be considered ‘left of’ and ‘right of,’ respectively; and the bottom of the display frame 552 may be considered ‘behind[,]’...the OVI ‘1’ 558, positioned along the right side of the display border 552, may indicate its referenced MO is to the right of the vehicle (i.e. of the GPS navigation device 550), outside the user/viewer/driver's field-of-view.” *Id.* The specification further explains that “the OVI ‘2’ 560, positioned left-of-center along the top of the display border 552, may indicate the MO (e.g. gas station) the OVI ‘2’ 560 references is to-the-left of the vehicle (i.e. of the GPS navigation device 550).” *Id.*, 10:38-42.

These computations do not require the level of specificity articulated Patent Owner, and is merely another attempt to improperly narrow the claims. And Patent

Owner's attempt to limit the claims to "the level of detail provided by the '297 Patent specification regarding the computation of a placement icon" (POPR, 11) in certain disclosed embodiments contradicts the canons of claim construction—reading out entire embodiments and limiting the claims scope to certain disclosed embodiments in the specification.

**C. An OVI Need Not Display Distance and Travel-Related Information Internally**

Finally, Patent Owner argues that "creating the OVI containing the distance and travel-related information" necessarily requires distance and direction indicators internal to and not separate from the OVI.<sup>2</sup> POPR 17-18. This is wrong. Patent Owner's requirement that all related information be displayed within the OVI contradicts the express disclosure of the '297 patent, which states:

Information associated with the OVI **300** (e.g. a vector **304**, an object reference **302**, a distance indicator **306**, a travel-time indicator **308**, etc.) may be displayed *internally or externally to the OVI 300*.

Ex. 1001, 5:48-51. With respect to the embodiments of Figures 5A and 5B, the specification similarly explains, "Information associated with the OVI

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<sup>2</sup> The Petition also renders obvious displaying distance and travel-related information within the OVI, adding *Suomela's* distance and travel related information to *Krietler's* OVI, which displays information internally.

558 (e.g. direction, distance, time-of-arrival, etc.) may be displayed inside of or in close proximity to the OVI 558.” *Id.*, 10:36-38.

None of the disclosed embodiments restrict the display of distance/travel related information to inside the OVI. Thus, an “OVI containing the distance and travel-related information” as recited in the claims, must be interpreted to include distance and travel related information whether “displayed internally or externally to the OVI.” Patent Owner’s limited and unsupported construction must be rejected.

### III. CONCLUSION

Patent Owner’s interpretation must be rejected. A proper construction of “OVI” cannot require 1) the OVI to contain a “Euclidian vector”; 2) calculation of placement and distance of an OVI with respect to a particular point; and 3) requiring distance and travel-related information be displayed inside the OVI. The plain and ordinary meaning of “OVI” is simply an object on a map display that is associated with information relating to a map object, consistent with the specification. Ex. 1001, 1:63-2:2.

Date: September 22, 2023

Respectfully Submitted,

/Kara A. Specht/

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Counsel for Petitioner

BMW of North America, LLC

**CERTIFICATE OF SERVICE**

The undersigned certifies that a copy of the foregoing **Petitioner's Reply to Patent Owner's Preliminary Response** was served electronically via email on September 22, 2023, in its entirety on the following:

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Patent Owner has consented to service by email.

Date: September 22, 2023

By: /Lisa C. Hines/  
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