

Filed: October 17, 2025

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.

SANDPIPER CDN, LLC,  
Patent Owner.

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Case IPR2025-01010  
Patent No. 10,057,322

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

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Patent Owner’s implicit constructions for three claim terms all violate core claim construction principles. The Board should reject Patent Owner’s proposals and—as proposed in the Petition—apply the plain meaning of each term.

**I. Patent Owner’s construction of “modified embedded resource” violates the doctrine of claim differentiation, renders terms superfluous, and excludes embodiments that return a modified embedded resource alone.**

The term “modified embedded resource” should receive its plain meaning. Patent Owner proposes construing this term as “a resource embedded within *another resource*, such as an *HTML document*.” Paper 6 at 1, 19 (all emphases herein added). It then further narrows this understanding by requiring that the modified embedded resource (the rewritten link) be embedded in some other resource during every step of the claims, even when the modified embedded resource is being “obtain[ed]” or “generat[ed].” *Id.* at 16. This narrowing construction fails for multiple reasons.

First, it violates claim differentiation, which is “is at its strongest ... where the limitation that is sought to be read into an independent claim already appears in a dependent claim.” *InterDigital Commc’n, LLC v. Int’l Trade Comm’n*, 690 F.3d 1318, 1324-25 (Fed. Cir. 2012) (quotations omitted). Independent claim 11 recites a “modified embedded resource.” EX-1001, cl. 11. Dependent claims 12 and 13 recite “replacing the embedded resource with the modified embedded resource in a resource” (*id.*, cl. 12) and “the resource is an HTML document and the modified embedded resource is a link” (*id.*, cl. 13). Patent Owner thus improperly reads

“a resource” and “an HTML document” from claims 12 and 13 into claim 11. Indeed, Patent Owner’s citation to claims 12 and 13 confirms its violation of claim differentiation. Paper 6 at 19.

Second, it ignores the differences between the independent claims and renders language in claim 1 superfluous. Claim 1 introduces “a content resource” and recites “delivering ... the content resource to the client device with the modified embedded resource,” EX-1001, cl. 1, but the other independent claims do not. Reading “modified embedded resource” to already be embedded in a resource would render this language in claim 1 superfluous. *Voice Tech Corp. v. Unified Patents, LLC*, 110 F.4th 1331, 1342-43 (Fed. Cir. 2024) (claim terms should not be “superfluous”).

Third, it excludes disclosed embodiments where the “API/compute engine” returns a modified embedded resource alone without a resource to the origin server. In Figure 1’s example, “the API/compute engine ... cause[s] the creation of an embedded resource 24B” (“modified embedded resource”) and “return[s] the modified embedded resource.” EX-1001, 4:67-5:7. Figure 1 shows that “HTML document 20” is only present in the origin server and the API/compute engine only returns a “Modified ER” without “document 20.” *Id.*, 5:32-34, FIG. 1. Similarly in Figure 4, “API/compute node 60 [is contacted] to return an embedded resource ([ ] ‘modified embedded resource’) 58B *to include in the page*,” but Figure 4 shows that the API/compute engine does not return “page 56” itself. *Id.*, 7:48-55, 8:5-10, FIG. 4.

Figures 1 and 4 thus expressly distinguish returning a “Modified ER” alone (e.g., from the API) and returning a “Page with Modified ER” (e.g., from the origin server). EX-1001, FIGs. 1, 4. The claims should not be read to exclude these embodiments by always requiring an accompanying resource (page). *Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1276-78 (Fed. Cir. 2008) (“We normally do not interpret claim terms in a way that excludes embodiments disclosed in the specification”).

Patent Owner’s proposed construction therefore cannot be correct because it violates claim differentiation, renders language in claim 1 superfluous, and reads out disclosed embodiments. The Board should give this term its plain meaning, as proposed in the Petition.

**II. Patent Owner’s construction of “API” improperly excludes disclosed embodiments where the API includes the compute engine functions while limiting the claims to another exemplary embodiment.**

“API” should be given its plain meaning. Patent Owner’s proposed construction adds a negative limitation that divorces the API from “the application itself,” which is the “compute engine” in the ’322 patent: “an API acts as an interface that allows the client to communicate with an application executing on the server—*it is not the application itself.*” Paper 6 at 22 (arguing “[i]n the context of the ’322 patent, the ‘API’ acts as a bridge between the origin server and the compute engine”). This construction reads out embodiments where the API can be the compute engine or include the compute routine: “*the API may include the functionality of the engine*

and *not necessarily be considered a discrete mechanism from the computing engine functions.*” EX-1001, 7:22-25. The specification then repeatedly refers to the “API/compute engine” or “API/compute node” as one component. *Id.*, 5:1, 7:51-52, 7:56, 9:3. It confirms this understanding by explaining that “[i]n some instances, *only an API is referenced* but it should be recognized that *such reference includes not only the interface but also the associated compute routine*, function, and the like for processing inputs to the API and generating a modified embedded resource.” *Id.*, 5:7-12. In the disclosed embodiments, the “API” and the “computing engine” are one and the same. Patent Owner’s construction is wrong because it excludes these embodiments. *Oatey*, 514 F.3d at 1276-78.

Patent Owner ignores these embodiments and instead points to the “API 26” and “computing engine 30” of Figure 1 to contend that the two components must be separate. Paper 6 at 22-23 (citing EX-1001, 4:32-34, 4:49-52, 6:24-30). But Figure 1 is only “*one example network configuration.*” EX-1001, 3:43-45, Fig. 1. Thus, Patent Owner’s construction is doubly flawed because it reads limitations into the claim from an exemplary embodiment, while ignoring the specification’s other embodiments that describe the API as part of the compute engine itself. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1326-28 (Fed. Cir. 2002).

Patent Owner’s extrinsic evidence (Paper 6 at 22 (citing expert testimony and an article)) is irrelevant because the specification makes clear that the API can serve

as the compute engine. *E.g.*, EX-1001, 7:22-25, 7:51-56, 9:3. The specification ends this inquiry. *Profectus Tech. LLC v. Huawei Techs. Co.*, 823 F.3d 1375, 1380-81 (Fed. Cir. 2016) (“Extrinsic evidence may not be used to contradict claim meaning that is unambiguous in light of the intrinsic evidence.”) (quotations omitted).

**III. Patent Owner’s construction of “tag” improperly limits the claims to exemplary embodiments that require the tag to indicate an API call and excludes other embodiments where the tag plays only some causal role.**

The “tag” limitation should also be given its plain meaning. Patent Owner again injects an unclaimed “indicating” requirement by contending that the “tag” is “a tag *indicating* that a resource address compute engine 30 should be contacted via a call to an API 26.” Paper 6 at 28 (quoting EX-1001, 4:32-34). Neither the claims nor the specification impose such a requirement.

Instead, claim 1 requires a “tag” that plays only some causal role in obtaining a modified embedded resource, i.e., “upon identification of the tag...” EX-1001, cl. 1. The specification confirms this causal relationship, because some “[e]mbodiments ... includ[e] *a tag that causes* the embedded resource to [be] *analyzed* to construct a modified embedded resource ....” *Id.*, 2:7-18, 1:57-63. Likewise, Figures 2 and 5 “illustrat[e] a method of identifying a tagged resource and thereafter providing a modified embedded resource ....” *Id.*, 2:50-54, 2:63-67, FIGs. 2, 5. In step 220 of Figure 2, all that is required is “upon identification of a tagged embedded resource, pass[ing] parameters to API ... for modified resource generation by way of a

resource compute engine.” *Id.*, FIG. 2 (capitalization altered). Patent Owner’s construction is wrong because it reads out these embodiments where the tag merely causes the embedded resource to be fetched. *Oatey*, 514 F.3d at 1276-78.

As it did with “API,” Patent Owner ignores these disclosures and instead improperly attempts to import limitations from a different embodiment where “the tag is ‘\$’” and “indicat[es]” an API call. Paper 6 at 28 (citing EX-1001, 4:32-34, 4:40-48). But this embodiment (Figure 1 and its description) are just “*one example* network configuration.” EX-1001, 3:43-45. And even the exemplary embodiment describes the “indicating” function permissively: “[t]he embedded resource *may include a tag* indicating that a resource address compute engine 30 should be contacted” and “[f]or instance, the HTML document *may include* an embedded resource of the form” shown in the “\$” tag example. EX-1001, 4:28-39. Thus, Patent Owner’s construction is also flawed for limiting the claims to exemplary embodiments. *Teleflex*, 299 F.3d at 1326-28.

#### **IV. Conclusion**

Petitioner respectfully requests that the Board adopt the plain and ordinary meaning and reject Patent Owner’s construction for each term discussed herein.

Dated: October 17, 2025

Respectfully submitted,

/Erika H. Arner/

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**CERTIFICATE OF COMPLIANCE**

Pursuant to Paper No. 13, Order Conduct of the Proceeding, dated October 9, 2025, Petitioners certify that the page count of the foregoing **Petitioner's Reply to Patent Owner's Preliminary Response** is six pages.

/Erika H. Arner/  
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**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 October 17, 2025, in its entirety on the following:

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