

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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**VMware, Inc.**

Petitioner,

v.

**Cirba IP Inc.**

Patent Owner.

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Case PGR2021-00098  
U.S. Patent 10,951,459

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**PATENT OWNER'S SUR-REPLY**

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**LIST OF EXHIBITS TO PATENT OWNER’S RESPONSE**

<b>EXHIBIT</b>	<b>DESCRIPTION</b>
2001	Declaration of Dr. Vijay Madiseti in Support of Patent Owner’s Response
2002	List of Materials Considered by Dr. Vijay Madiseti
2003	<i>Curriculum Vitae</i> of Dr. Vijay Madiseti
2004	Order, D.I. 1161, <i>Cirba Inc. (d/b/a Densify) and Cirba IP, Inc., v. VMware, Inc.</i> , Case 1:19-cv-0742-LPS (D. Del.), Feb. 24, 2022
2005	Memorandum Opinion, D.I. 1160, <i>Cirba Inc. (d/b/a Densify) and Cirba IP, Inc., v. VMware, Inc.</i> , Case 1:19-cv-0742-LPS (D. Del.), Feb. 24, 2022
2006	Joint Claim Construction Brief, D.I. 1094, <i>Cirba Inc. (d/b/a Densify) and Cirba IP, Inc., v. VMware, Inc.</i> , Case 1:19-cv-0742-LPS (D. Del.), Feb. 24, 2022
2007	DICTIONARY BY MERRIAM-WEBSTER ()
2008	THE MERRIAM-WEBSTER DICTIONARY (2004)
2009	ROGET’S II THE NEW THESAURUS (3d ed. 2003)
2010	Newman, Morris et al., IBM, SERVER CONSOLIDATION WITH VMWARE ESX SERVER (January 2005)
2011	Brodkin, Jon, <i>Virtual Server Sprawl Highlights Security Concerns</i> , April 30, 2008
2012	Provazza, Alyssa, <i>FAQ: Devising a Server Consolidation Plan</i> , November 24, 2010
2013	VMware, Inc., <i>Virtualization</i> (available at <a href="https://www.vmware.com/solutions/virtualization.html">https://www.vmware.com/solutions/virtualization.html</a> )
2014	The Computer Language Company Inc., <i>Virtual Environment</i> , (available at <a href="https://www.computerlanguage.com/results.php?definition=virtual+environment">https://www.computerlanguage.com/results.php?definition=virtual+environment</a> )
2015	Hammersley, Eric, PROFESSIONAL VMWARE SERVER 1-9 (2007)
2016	VMware, Inc., <i>Introduction to VMware Infrastructure, Update 2 and later for ESX Server 3.5, ESX Server 3i version 3.5, VirtualCenter 2.5</i> (2008, 2009)
2017	Defense Industry Daily, <i>The Virtual Armed Forces: US Military Turns to Virtualization</i> , August 15, 2011 (available at

	<a href="https://www.defenseindustrydaily.com/dod-virtual-machines-06991/">https://www.defenseindustrydaily.com/dod-virtual-machines-06991/</a> )
2018	Steele, Colin, <i>Face-Off: VMware vs. Microsoft in the Hypervisor Wars</i> , May 1, 2009 (available at <a href="http://web.archive.org/web/20150909123350/https://itknowledgeexchange.techtarget.com/server-virtualization/face-off-vmware-vs-microsoft-in-the-hypervisor-wars/">http://web.archive.org/web/20150909123350/https://itknowledgeexchange.techtarget.com/server-virtualization/face-off-vmware-vs-microsoft-in-the-hypervisor-wars/</a> )
2019	Kerner, Sean Michael, <i>KVM vs. Xen vs. VMware. Is it a Hypervisor War?</i> , September 6, 2008 (available at <a href="https://www.internetnews.com/software/print.php/3769911">https://www.internetnews.com/software/print.php/3769911</a> )
2020	Venezia, Paul, <i>Ramming Microsoft Down IT's Throat</i> , September 21, 2009 (available at <a href="https://www.infoworld.com/article/2629925/ramming-microsoft-down-it-s-throat.html">https://www.infoworld.com/article/2629925/ramming-microsoft-down-it-s-throat.html</a> )
2021	Dubie, Denise, <i>VMware, MS Battle Over Virtualization Management</i> , June 27, 2008 (available at <a href="https://www.cio.com/article/2435386/vmware--ms-battle-over-virtualization-management.html">https://www.cio.com/article/2435386/vmware--ms-battle-over-virtualization-management.html</a> )
2022	Rosenblum, Mendel & Garfinkel, Tal, <i>Virtual Machine Monitors: Current Technology and Future Trends</i> , COMPUTER, Vol. 38, No. 5, 39-47 (May 2005)

Petitioner's Reply (Paper 22, "Reply") continues to press the incorrect notion that "place" can only mean actual, physical placing and not theoretical or analytical placing. Petitioner urges the Board to ignore: (1) the plain claim language, which is unrestricted and therefore broad enough to cover both types of placing, (2) the District Court's refusal to restrict the scope of "place" in a manner similar to what Petitioner attempts here, and (3) the numerous disclosures of placing sources on targets for planning purposes (i.e., analytical placement) and actual pre-existing placement of sources. Petitioner's feeble campaign to import limitations into the claims as a way of bolstering its written description arguments is unsupportable and should be defeated.

**I. PETITIONER'S ARGUMENTS AS TO "ALREADY PLACED"  
DEPEND ON AN IMPROPER NARROWING OF CLAIM TERMS**

Petitioner's only path to succeeding on its Section 112(a) claim is to convince the Board of what "placing" *cannot* be: it cannot (according to Petitioner) be informed by copious discussions regarding the creation of "consolidation solutions," "plans," and "roadmaps," where source/target configurations are planned out in accordance with compatibility evaluations, *e.g.*, Ex. 1009 [0074], [0088], [0097], [00104], [00109], [00305], [00313], [00318], [00348]-[00352], [00356], [00371], Figs. 1-3, 9, 24(a); it cannot be instances where sources are incrementally added to targets with pre-existing systems, *e.g.*, Ex. 1009 [00313]-[00321]; it cannot involve

transfer sets where sources are stacked onto targets in a pre-execution analysis, *e.g.*, Ex. 1009 [0086]-[0087], [00316], [00366], Figs. 3, 27, 52. That is, Petitioner carves out everything the '936 application discloses about “placing” in order to convince the Board that it says *nothing* about “already placed.”<sup>1</sup> To do so, Petitioner avoids proposing an affirmative construction (which would more clearly disclose its gambit) and instead insists “placing” must *exclude* the common, well-known understanding that something can be “placed” in real-life or as part of a plan.<sup>2</sup> But

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<sup>1</sup> There is no dispute that once something has been “placed,” it is “already placed.” The dispute is whether “theoretical” placing can be considered placing, such that a “theoretically” placed source is an “already placed” source.

<sup>2</sup> Petitioner was obligated to disclose any relevant claim construction position in its Petition. It disclosed none and is foreclosed from doing so now. 37 C.F.R. § 42.204(b)(3); Consolidated Trial Practice Guide (November 2019) at 74 (citing *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369–70 (Fed. Cir. 2016)); *see also Axonics, Inc. v. Medtronic, Inc.*, IPR2020-00712, Paper 42 at 34-37 (P.T.A.B. Sept. 22, 2021). This foreclosure should also extend to backdoor attempts to craft constructions, including Petitioner’s repeated attempts to narrow the plain meaning of “place.” “Place” should be given its plain and ordinary



the '936 application discloses both actual as well as “theoretical” or “analytical”<sup>3</sup> placing, making it clear to a POSA that applicants had possession of their claimed invention, as required under Section 112(a).

**A. The Wedding Seating Map Analogy**

A simple analogy is useful in understanding the fallacy of Petitioner’s arguments. Assume a couple is planning a wedding. Their reception dinner has ten tables, with varying numbers of seats at each table. The couple reviews their guest list and evaluates who should be seated where and with whom. They create a seating plan based on their guest list. RSVPs arrive (indicating who’s coming, who’s not), and the couple decides to move people placed at tables to different tables, based on considerations important to them (e.g., Uncle Harry’s coming; keep him away from Aunt Sally). Once the guest list is finalized with all considerations taken into account, the couple prepares note cards with table assignments for each guest.

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meaning, which is “putting or arranging, i.e., placing or placement of systems includes moving, transferring, stacking or otherwise arranging systems.” POR 16-17.

<sup>3</sup> For ease of reference only, Patent Owner adopts Petitioner’s use of “analytical” (or “theoretical”) to describe all non-actual, non-physical instances where sources are described as being put, stacked, moved, etc. onto targets.

In this analogy, wedding guests are sources and tables are targets. Initially, the seating chart (or plan or map) is blank. The couple places guests (sources) at tables (targets), after evaluating the guests' compatibilities with other guests and possible tables, using one or more rules (e.g., seat children together, the elderly at tables closer to the front of the room, quarrelsome relatives apart, etc.). They create a seating plan. Because the wedding hasn't happened yet, these placements are purely theoretical.

Prior to the wedding, several guests are added. The couple evaluates new guests with guests already placed to determine their compatibilities, which may result in moving some people around.

Some guests cancel, and the couple can save money by consolidating the number of tables to nine. The couple evaluates guests they had previously placed at tables to see if they are compatible for consolidation.

By the wedding day, the seating chart is finalized, and the couple instructs guests where to sit by providing note cards with their name and table number. Only at dinner time are guests actually, physically placed at their assigned tables.

**B. “place” and “already placed”**

Petitioner's Reply rehashes the argument that “place” must be limited to “actually” placing and cannot encompass “theoretically” or “analytically” placing. Reply at 1-13. Using the seating chart analogy, this means guests cannot be

considered “placed” at a table until dinner time – i.e., absent *actual execution* of the plan (bottoms in seats), no guest can be considered “placed” anywhere. By Petitioner’s reasoning, because creating a seating chart doesn’t effect “actual” placements, when the couple evaluates where to seat a new guest, they are not determining compatibility with an “already placed” guest, because that pre-existing guest was never physically, actually put into their seat. The same is true, says Petitioner, of consolidating tables – Claim 1 would not permit consolidation between two already assigned tables because the plan to consolidate is only “theoretical.”

The District Court determined that “place” should be given its plain and ordinary meaning. Ex. 2005 at 13-15<sup>4</sup>. Per the Court’s reasoning, that means *not* limiting “placing” to “moving” (i.e., requiring real movement) as Petitioner urged. Rather, the term is properly understood to be broader and include actions like “consolidating, stacking, and transferring.” Ex. 2005 at 14-15.

The dictionary definition of “place” – “to put in or as if in a particular place,” “to put in a particular state,” or “to distribute in an orderly manner” – is similarly not limited to “moving.” Ex. 2007.

Contrary to Petitioner’s assertions, nowhere in the claim language, the intrinsic record, the District Court’s construction, or the extrinsic evidence, is

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<sup>4</sup> Page numbers refer to the exhibit page number in the bottom right corner.

“place” limited to “actually” or “physically” placing, and exclusive of “theoretical” or “purely analytical” placing. Reply at 1-13. Petitioner forces this artificial distinction without credible support. A source can be “placed” onto a target in a theoretical sense in the same way a guest can be “placed” on a seating chart without having to actually put a human body at a physical table.

The specification confirms this understanding that “placing” can be theoretical (in addition to actual). The numerous discussions of consolidation “solutions,” “plans,” and “roadmaps” for putting sources onto targets, by their plain meaning, describe something that *has yet to actually occur*. *E.g.*, Ex. 1009 [0074], [0088], [0097], [00104], [00109], [00305], [00313], [00318], [00348]-[00352], [00356], [00371], Figs. 1-3, 9, 24(a). By logical extension, an “already placed” source may be a source that is planned for placement on a particular host, but that has not actually been put there, much like an “already placed” guest at one of the wedding tables who hasn’t physically sat down.

Of course, “already placed” also includes actual placements. For example, in the Background section of the Application, the patentees discuss “under-utilization” of hardware (like servers) as motivation for seeking out consolidation solutions. Ex. 1009 at [0005]-[0006]. Consolidating “under-utilized” servers includes, for example, combining hosts running fewer-than-optimal applications. Ex. 1023 at 54:15-56:20, 71:4-73:24, 83:14-84:4. In other words, hosts with applications

*already placed* on them get evaluated for consolidation with other under-utilized hosts to reduce the overall number of hosts. Ex. 1023 at 12:2-14:20, 37:21-38:19, 71:4-73:24. This requires evaluating those “already placed” applications to determine their compatibilities with each another and the target hosts. *Id.* To argue, as Petitioner does, that this isn’t written description of “already placed” sources not only strains credulity, it breaks it. *See also* POR at 11-15 (“source systems” include systems that are to be moved, are being moved, and already moved); Ex. 2005 at 12 (“The Court agrees with [Patent Owner] that the patent does not place a temporal limit on the claimed ‘source system’ - that is, it does not exclude systems that have already been moved or are currently being moved.”).

The ’936 application also expressly defines systems as being “physical systems, virtual systems, *or hypothetical* systems” that “can encompass any entity which is capable of being analysed for any type of compatibility . . . .” Ex. 1009 at [0082] (emphasis added) and [0085]. The remainder of the application discusses evaluations of systems without eliminating hypothetical ones. In other words, hypothetical systems can also be evaluated, in the same way as any other “entity which is capable of being analysed for any type of compatibility.” *Id.* at [0085]. Hypothetical systems, by definition, are not real, making it logically impossible for placements of such systems to be “actual” and not “purely theoretical.” Petitioner’s argument that placements of systems must be “actual” would require eliminating an

entire category of “systems” – another tell-tale sign that Petitioner’s position isn’t credible.

Petitioner’s Reply makes much of the word “mapping” – a term Patent Owner used in its POR to describe transfer sets where sources are put (or stacked) onto targets. POR at 26 (“Because the sources go ‘onto’ the target, this mapping is also referred to as a ‘placement’ (which may involve ‘consolidating,’ ‘stacking,’ ‘moving,’ ‘transferring,’ etc. . . .”). To be clear, “mapping” as it pertains to placing sources in transfer sets is *Patent Owner’s* terminology, not the ’936 application’s.<sup>5</sup> The ’936 application uses the term “stack” to describe the same thing. Despite this, Petitioner builds a “mapping” strawman, arguing “placing” doesn’t include “mapping,” to assert that transfer set scenarios are not examples of placing.

First, the word “mapping” isn’t the dispute—it’s whether “stacking” sources onto targets in transfer sets, as described in the application, is evidence of “placing.” It is. A source may be “placed” (or stacked) onto a target in a transfer in, for example, a multi-dimensional compatibility analysis. For example, Ex. 1009 at [0316] discusses transfer set “T1 (S1, S2, S3 stacked onto S4).” That T1 was not “actually executed” or S1, S2, and S3 were not “actually stacked” onto S4 does

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<sup>5</sup> None of the portions of the ’936 Application Patent Owner cites uses the word “mapping” (*see* Ex. 1009 [0086]-[0088]), it was simply a word choice.

nothing to change the fact they are placed there as part of the analysis. Petitioner's argument otherwise depends on its discredited theory that "placing" is limited to "actual" placements (i.e., "moving").

Petitioner's argument also ignores the District Court's express finding that "placing" *includes* "stacking" (not limited to "actual" stacking). Nothing in the application requires "actual" stacking or disavows "theoretical" or "analytical" stacking. Ex. 2005 at 13-15. As is evident from disclosures throughout the application (including the title) and the claim language, the invention is about *determining compatibility* of systems that can be used in service of forming and/or executing consolidation solutions, capacity planning, optimization, administration, etc. *E.g.*, Ex. 1009 at [0002], [0013], [0074], [0085], [0091], [0094]-[0098], [00104], [00108], [00156], [00313]-[00317], [00322], [00325]-[00326], [00342], [00382], [00385] ("[E]ach analysis and associated map discussed above may instead be used for purposes other than consolidation such as capacity planning, regulatory compliance, change, inventory, optimization, administration etc. and any other purpose where compatibility of systems is useful for analyzing systems."); Ex. 2005 at 13-15. This necessarily includes pre-execution activities, including mapping what sources go onto which targets, based on compatibility determinations. To read these disclosures as being limited to *executed* plans and solutions only defies the obvious.

**1. Petitioner’s Belated Argument Regarding the Prosecution of the ’492 Patent Is Improper and Incorrect**

Petitioner’s Petition never identified the ’492 patent’s prosecution history (Ex. 1024) among the evidence relied on in support of Petitioner’s lack of written description claim.<sup>6</sup> Petitioner cannot now rely on it in its Reply. *See* Reply at 3-4, 7. *See Qiagen N. Am. Holdings, Inc. v. HandyLab, Inc.*, No. 2020-2249, 2021 WL 5024387, at \*3 (Fed. Cir. Oct. 29, 2021) (citing *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) and Patent Trial and Appeal Board Consolidated Trial Practice Guide (November 2019) at 73 (“Petitioner may not submit new evidence or argument in reply that it could have presented earlier, e.g. to make out a prima facie case of unpatentability.”)).

Petitioner’s substantive assertion – that arguments made during prosecution of the ’492 patent “confirms that placement must be more than just part of an analysis” (Reply at 3) – is also wrong. In responding to a rejection under Section 101, applicants characterized their claims as a “practical application” of an invention, evidenced by the claim’s recitation of “placing the source systems onto the target systems in accordance with technical, business, and workload constraints determined in the compatibility analysis.” Based on this, Petitioner argues that to

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<sup>6</sup> The ’492 patent’s file history is Exhibit 1024 to Petitioner’s Reply.



be “practical,” “placing” must be not merely “analytical.”<sup>7</sup> Reply 4. Nothing supports this supposition. An invention that determines a consolidation solution by conducting compatibility evaluations is “practical” even if the solution isn’t executed, much like a seating chart is “practical” even if the wedding is canceled.

**C. “source system” and “target system”**

Petitioner attempts the same mental gymnastics with “source system” as with “placing,” arguing that sources are no longer sources if they’ve moved or been placed somewhere. Reply at 25-26. Essentially, Petitioner limits “source systems” to only virgin, never-before-placed systems.<sup>8</sup> The Court considered and rejected this very argument (Exhibit 2005 at 10-11 (“the construction [Petitioner] now proposes is the same one the PTAB adopted when instituting the IPR [of the ’492 patent]” and “[Petitioner] argues its construction is consistent with the specification’s express definition”), finding that the specification of the ’459 patent (and thus the ’936 application) supports Patent Owner’s proposed construction. *Id.* at 10 (“[T]he

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<sup>7</sup> Petitioner suggests (without elaboration) that if “placing” is construed to include “analytical” activity, then it is “unpatentably abstract.” Reply 7. Petitioner’s untimely (and unsubstantiated) assertion should be given no weight.

<sup>8</sup> Per the Court’s Order, “placing” includes, but isn’t limited to “moving.” Ex. 2005 13-15.

specification’s disclosure that the systems may be physical, virtual, or hypothetical is consistent with the express definition of while providing more specificity.”); *see also id.* at 11 (“The Court agrees with [Patent Owner] that the patent does not place a temporal limit on the claimed ‘source system’ – that is, ***it does not exclude systems that have already been moved or are currently being moved.***”) (emphasis added). Tellingly, Petitioner also makes no attempt to distinguish the *Trading Technologies* case cited in the POR affirming a construction based on additional intrinsic evidence beyond a singular definitional statement in the specification, where the challenger blinded itself to other relevant disclosures in the specification. *See* POR at 13 (citing *Trading Techs. Int’l, Inc. v. eSpeed, Inc.*, 595 F.3d 1340, 1353-56 (Fed. Cir. 2010)).

## **II. THE ’936 APPLICATION DISCLOSES EVALUATIONS (INCLUDING COMPATIBILITY EVALUATIONS) INVOLVING “ALREADY PLACED” SOURCE SYSTEMS.**

Patent Owner provided ample and detailed support in the ’936 Application that describes “already placed,” *as it is properly construed*. *See Harari v. Lee*, 656 F.3d 1331, 1340-41 (the written description requirement is satisfied when “the properly construed claim” is supported by the specification).

### **A. Sources Stacked Onto Targets In Transfer Sets Are Examples of “Already Placed” Sources**

As noted above, Petitioner attacks disclosures of sources stacked onto targets as examples of “already placed” sources by arguing these “mappings” are not “placements.” But Petitioner’s focus on the word “mapping” is a nonsensical red

herring. The '936 application uses the word “stack” to describe sources put onto targets as part of transfer sets. “Stacking” is a form of “placing,” both in the plain meaning of the word and as used in the '936 application, as well as the Court’s determination that “placing” includes “stacking.” Ex. 2005 at 13-15. This means all disclosures relating to putting or stacking sources on targets in transfer sets are examples of source placements. Evaluating those stacked sources is evaluating “already placed” sources, which is described, for example, in paragraphs [0313]-[0319] of the '936 application.

**B. Other Examples from the '936 Application Provide Further Support For “Already Placed” Source Systems**

**1. Forward Consolidation of a Hypothetical System Involves “Already Placed” Source Systems**

The '936 application defines computer systems as “physical systems, virtual systems, or hypothetical systems” that “can encompass any entity which is capable of being analysed for any type of compatibility . . . .” Ex. 1009 at [0082] and [0085]. Petitioner seeks to discredit disclosures of “forward consolidation” of hypothetical systems that “can be used to simulate the case where a new application is to be introduced into the environment [] and ‘forward consolidated’ onto existing target systems” because, according to the Petitioner, the disclosure doesn’t “describe compatibility evaluations that compare hypothetical source systems to other source systems....” Ex. 1009 at [0082]; Reply at 5-6. This argument ignores the fact that

the bulk of the application's disclosures are about evaluating systems – *any kind of system*, including hypothetical ones. Ex. 1009 at [0082] and [0085]. Petitioner's attempt to graft on a requirement that there be separate discussions pertaining particularly to “hypothetical” systems fails in light of the application's explanation that a system may be “physical, virtual, or hypothetical” and encompasses “any entity which is capable of being analysed for any type of compatibility . . . .” Ex. 1009 at [0082] and [0085]. Thus, discussions of “systems” throughout the application apply equally to hypothetical as well as physical and virtual systems.

Petitioner's argument that the forward consolidation example doesn't indicate a contemplated target has “pre-existing source systems” already running on it is also unpersuasive. The '936 application's disclosure of “pre-existing source-target transfers,” including the option for users to elect to remove pre-existing source-target transfers from an ongoing compatibility analysis, necessarily means there are targets with source systems “already placed” on them. *See* POR at 27, n.6 (citing Exhibit 1009 at [0070], [00345], [00380], Fig. 49).

Petitioner also argues that once placed, a hypothetical system is no longer hypothetical. *See* Reply at 7 (“This is because the system would no longer be hypothetical after placement.”). This mirrors Petitioner's position that once moved, a source is no longer a source. Reply 26; Petition 32, 45-46. Both are nonsense. A hypothetical system doesn't lose its characteristic of being hypothetical simply

because it is placed on a host. For example, a business may wish to evaluate whether an under-utilized server can host new applications. The business models whether a hypothetical application would be compatible with that server and applications already placed on it (e.g., “If we put an application of this size with these requirements on that server, would it work?”). In Petitioner’s view, modeling that placement using a hypothetical system would render that system no longer hypothetical. This is, as the example shows, demonstrably untrue. Likewise, the disclosures of the ’936 application make clear that, even after placement, the placed systems continue to be referred to as “sources,” notwithstanding their “already placed” status. The district court agreed. *See* Ex. 2005 at 12 (“The Court agrees with [Patent Owner] that the patent does not place a temporal limit on the claimed ‘source system’ – that is, *it does not exclude systems that have already been moved or are currently being moved.*”) (emphasis added).

**2. Evaluating the Incremental Effect of Adding a Source System to a Specified Transfer Set Involves “Already Placed” Source Systems**

Petitioner argues a transfer set “only includes sources *mapped* to—not placed on—targets.” Reply at 8 (emphasis added). But the ’936 application never uses to the word “map” or “mapping” to talk about sources on targets in transfer sets – it uses the word “stack”:

- Transfer sets:
  - T1 (S1, S2, S3 stacked onto S4)
  - T2 (S5, S6, S7, S8, S9 stacked onto S10)
  - T3 (S11, S12, S13 stacked onto S14)
  - T4 (S15 stacked onto S16)
  - T5 (S17 stacked onto S18)

Ex. 1009 at [0316]; *see also id.* at [0325] (“When *stacking* multiple source entities onto a target...”) (emphasis in original). “Stacking,” as the Court found, is synonymous with “placing.” Ex. 2005 at 13-15. Petitioner’s argument relies on its premise that unexecuted transfer sets (i.e., that are analytical or theoretical) cannot have “placed” sources. For the reasons discussed here and in the POR, Petitioner is wrong.

Additionally, Patent Owner’s expert’s testimony is consistent with a POSA’s understanding of the meaning of the “place” terms (*e.g.*, Ex. 1023 at 54:15-55:17, 69:19-70:20, 71:4-73:23, 74:9-76:19, 89:14-90:9). Petitioner’s belated argument that a transfer set doesn’t disclose evaluation of “already placed” source systems unless it describes “actual placement” should be rejected.

### **3. Using an Existing Consolidation Solution as an Input to a Compatibility Analysis Involves “Already Placed” Source Systems**

Petitioner’s arguments concerning the ’936 application’s disclosure of existing consolidation solutions as inputs for “evaluating the incremental effect of adding other source systems (specified in the analysis input) to the specified transfer

sets” fail for the same reasons as described above and in the POR with respect to transfer sets. *See* POR at 26-27; Exhibit 1009 at [0088], [00313], [00319].

**4. The ’936 Application’s “Auto-Fit Algorithm” Involves “Already Placed” Source Systems**

Like the forward consolidation and existing consolidation examples, Petitioner’s arguments concerning the auto fit algorithm rely on a determination that “place” be limited to “actual placement” and “source systems” be limited to never-before-placed sources systems. Because neither limitation is warranted, Petitioner’s argument fails and disclosures of the auto-fit algorithm disclose “already placed” systems.<sup>9</sup>

**5. Analyses That Use Pre-Existing Source-Target Transfers Involve “Already Placed” Source Systems**

As everywhere else, Petitioner’s arguments against the relevance of analyses using pre-existing source target transfers rely on its supposition that “place” is limited to “actual placement.” As everywhere else, Petitioner is wrong. *See also*,

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<sup>9</sup> The Petition mischaracterizes the auto fit analysis by alleging “no subsequent iteration [involving the auto fit algorithm] will evaluate any source system that has already been designated for transfer.” Disclosures in the ’936 application cited in Patent Owner’s POR disprove this assertion. *See* POR 34-36 (citing Exhibit 1009 [00355]–[00358], [00366]; *see also id.* [00344]).

e.g., Ex. 1009 at Fig. 49 (option to “Clear existing Transfers”); Ex. 1023 at 89:3-92:19.

**6. 1-to-1 Compatibility Analyses Involve “Already Placed” Source Systems**

Patent Owner’s POR identified the exemplary disclosure in the ’936 application of incrementally transferring sources, one after another, onto a target system using the 1-to-1 compatibility analyses to assess the impact of each transfer. *See* POR at 30-31. Petitioner responds by asserting, in a conclusory fashion and without support, that “Paragraph 95 refers *generally* to assessing ‘the impact of each transfer’ *on the computing environment as a whole.*” Reply at 14 (emphasis added). Petitioner identifies no grounds for disputing that a POSA would understand incrementally transferring source systems onto a target system involves placing source systems onto a target system on which other source systems have already been placed.

**7. OS-Level Application Stacking Involves “Already Placed” Source Systems**

Patent Owner identified “OS-Level application stacking” as an example of “already placed” source systems. POR at 20 (discussing OS-Level application stacking in the context of the “place” terms); Exhibit 1009 at [0009]. Patent Owner’s expert testified that a POSA would have understood the specification’s disclosures as such. Ex. 1023 at 11:1-12:23, 33:19-34:21, 37:21-38:19, 71:4-73:24, 75:2-14.



### **III. THE '936 APPLICATION DISCLOSES THE CLAIMS' "ISSUING INSTRUCTIONS" LIMITATION.**

Patent Owner and Petitioner agree the term “*issu[ing] instructions to place* the at least one source system on the at least one target system *in accordance with the determined placement*” requires both “instructions” and a “determined placement.” See POR at 40; Reply at 15. Petitioner then contends that “to save the claims,” Patent Owner “must identify *distinct* support in the '936 application.” Reply at 15 (emphasis added). Unsurprisingly, Petitioner supplies no supporting citation for its novel requirement. Section 112(a) requires only that a patent’s disclosures “reasonably convey[] to those skilled in the art that the inventor[s] had possession” of their claimed invention. There is no requirement that those disclosures be “distinct” for each element.

#### **A. The “'936 Application Reasonably Conveys Applicants Had Possession Of “Issuing Instructions To Place... In Accordance With the Determined Placement”**

Petitioner criticizes Patent Owner for pointing to “two different displays of the same set of analytical results” as supporting disclosure for the “issu[ing] instructions to place” and “determined placement” aspects of the claim limitation. Reply at 15. Patent Owner did so because those citations are evidence that applicants had possession of the “issu[ing] instructions to place...in accordance with the determined placement” element of their claims, which is all that is required under Section 112(a). Petitioner presumably believes Patent Owner must identify

“distinct” (and not the “same”) disclosures in support of each. In addition to being legally unfounded, that is also illogical.

**1. Disclosures need not be “distinct” from one another to evidence possession of claim elements**

Using the wedding seating map analogy, the seating map itself shows where the couple have determined to place each guest. That same map shows the locations and numbers of the tables where the guests have been placed. The couple may decide to simply post the chart to instruct people where to sit at the dinner. Or the couple could choose to create individual notecards with each guest’s name and table number. The couple may alternatively put everyone’s name onto a single page, in alphabetical order, along with their corresponding table numbers. There are many ways to “issue instructions” to guests as to their assigned tables, all of which rely on the guests’ “determined placements.” Pointing to the seating map, for example, can be evidence that the couple was in possession of both their “determined placements” and that they “issued instructions” based on those placements to guests.

So too here. The ’936 application describes roadmaps which evidence applicants’ possession of determining placements in accordance with the requirements of the claim. Ex. 1001 at 20-24, 6:46-51, 28:34-46. The application also discloses lists of “actual transfers” proposed by that consolidation analysis that detail and instruct which source is placed on which target. *Id.* at 39:5-13, 6:35-41.

It stands to reason the two disclosures overlap in information, because they involve the same transaction in the disclosed consolidation scenario. That doesn't alter the fact these disclosures evidence applicants' possession of the claim limitation.<sup>10</sup>

**1. “Instructions” are not limited to any particular type of instruction**

Petitioner pretends the claims require “instructions” of particular type and detail. They do not. The claims require only that “instructions” be issued. Having never offered a construction for the term, Petitioner now wishes to narrow it to something requiring unspecified “directives” and evidence of “implementation.” Reply at 20. Nothing supports importation of such limitations into the claim.

The claim claims “[a] system for determining placement of source computer systems on target computer systems, the system configured to execute operations causing the system to . . . issue instructions to place the at least one source system on the at least one target system in accordance with the determined placement.” Nothing requires the instructions to be of any type or granularity nor that they be

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<sup>10</sup> Figure 52 is also not “substantively identical” to Figure 50. Reply 16. Fig. 52 provides additional information, such as, for example, the “transfer type” that describes how a source entity is transferred onto a target – i.e., instructions to place a source entity onto a target.

implemented. The “system” of the preamble is configured to “execute operations” that causes instructions to be issued, but nothing more.

Figure 52 is an example of a set of instructions that specify which source is placed on which target, in the same way that the wedding couple’s notecards or list of table assignments are instructions on where to sit. Ex. 1001 39:5-13, 6:35-41. Whether the sources actually get placed or the guests actually follow the seat assignments *doesn’t change the fact that instructions were provided*.<sup>11</sup> In particular, Figure 52 provides a list of actual transfers proposed by the consolidation analysis, derived from the broader consolidation solution exemplified by Figure 50. *See, e.g.*, Exhibit 1009 [0086] (“The actual transfer describes the movement of a single entity onto a target, wherein the specification identifies the source, target, and ***transfer type***,” and “[t]he transfer type (or consolidation strategy) ***describes how*** a source entity is transferred onto a target, *e.g.*, virtualization, OS stacking, etc.”). These are

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<sup>11</sup> If the Board determines “instructions” requires something more, the ’936 application provides adequate written description in support. Dr. Madisetti testified, a POSA would understand the ’936 application as disclosing instructions “to initiate a transfer,” as well as instructions “for a computer program that performs the transfers.” Ex. 1023 at 58:20-60:8, 64:7-67:10.

“instructions to place the at least one source system on the at least one target system in accordance with the determined placement.”

**B. The Proper Construction of “Place” Obviates Petitioner’s Arguments**

Petitioner’s arguments also predictably rely on its unsupportable narrowing of the scope of “place.” Disclosures providing written description of the term “*issu[ing] instructions to place* the at least one source system on the at least one target system *in accordance with the determined placement*” – for all the reasons discussed here and Patent Owner’s POR – include disclosures relating to “non-actual” placements. These include descriptions of consolidation solutions and roadmaps. POR 37-47.

Petitioner’s arguments that Patent Owner’s identification of exemplary disclosures of the “issuing instructions” limitation in the ’936 application somehow conflicts with Patent Owner’s testimony are incorrect and should be rejected. Petitioner references a single statement in Patent Owner’s expert’s testimony, taken out of context, to argue the “determined placements” of the consolidation solutions described in the ’936 application somehow render it unnecessary to issue instructions to place those source systems in accordance with the determined placement. *See* Reply at 18. As Patent Owner’s expert made clear, the claims of the ’459 patent do not require that the “issue instructions” limitation require “*actually*

*applying* the determined placement,” only that the system or method “issue an instruction in accordance with the determined placement.” *See* Exhibit 1023 65:21-67:10.<sup>12</sup>

Likewise, Petitioner’s arguments alleging Patent Owner attempts to introduce a false temporal distinction in the disclosures of the ’936 application fail. It’s true the consolidation analysis is executed before the consolidation solution results are presented as exemplified in Figure 50 and the list of recommended transfers generated in Figure 52. *See* Reply 19-20. But, as explained above, the consolidation solution disclosed in Figure 50 and the issued instructions disclosed in Figure 52 do not provide the same information, and Petitioner doesn’t show otherwise how the ’936 application fails to provide support for both the “instructions” and “determined placement” claim limitations of the ’459 patent.

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<sup>12</sup> Petitioner conflates the enablement and written description requirements in its citations to *LizardTech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005). The Federal Circuit made clear that the enablement requirement is separate and distinct from the written description requirement. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1344-45 (Fed. Cir. 2010).

#### IV. THE BOARD SHOULD ISSUE A FINAL WRITTEN DECISION

Petitioner asks for a guaranteed second bite at the apple if its PGR fails. It shouldn't be given one. Petitioner argues that if – after being fully heard and consuming the Board's resources – Petitioner loses its PGR on the merits, the Board should cancel the proceeding and not issue a Final Written Decision. The offered rationale for this request is that, if the Board finds the '459 patent claims *do* have sufficient written description, then institution of Petitioner's PGR was error and the proceeding should be effectively expunged.

Petitioner cites two decisions vacating institution decisions and terminating proceedings in IPR and CBM proceedings. Both are inapposite. In *Atlanta Gas Light Co. v. Bennett Regul. Guards, Inc.*, No. IPR2015-00826, 2021 WL 202800, at \*3 (P.T.A.B. Jan. 20, 2021) the Board dismissed the IPR because it determined (after institution, but before substantive examination) that the petition was time barred. In other words, *Atlanta Gas* was dismissed as a result of a statutory bar, **not** a substantive determination on the merits. Here, after persuading the Board to institute its PGR, full briefing, and presumably a full hearing, Petitioner will have received the benefit of a fulsome substantive challenge of Patent Owner's patent. If that challenge fails on the merits, the Board must issue a Final Written Decision affirming patentability, as required by 35 U.S.C. § 328(a).

Petitioner's citation to *Apple Inc. v. Universal Secure Registry, LLC*, No. CBM2018-00024, Paper 47 (P.T.A.B. Nov. 19, 2019) is similarly inapposite. There, the CBM was terminated on patentability-non-substantive grounds regarding CMB eligibility under AIA § 18(d)(1) and 37 C.F.R. § 42.301(a), *not* the grounds on which the CBM was originally instituted (which was § 103 obviousness).

## V. CONCLUSION

For the reasons stated above, the Petition fails to show any challenged claim is unpatentable for lacking written description support. And because at least the pre-AIA '936 application provides adequate written description for the challenged claims, the Board should also find the '459 patent isn't eligible for post-grant review and issue a Final Written Decision affirming the patentability of the challenged '459 patent claims.

Dated: July 22, 2022

By: /Khue V. Hoang/  
Khue V. Hoang  
PTO Reg. No. 44,767  
**Counsel for Patent Owner**



**CERTIFICATE OF COMPLIANCE**

The undersigned hereby certifies that Patent Owner's Sur-Reply consists of 5,600 words, excluding the table of contents, table of authorities, table of exhibits, certificate of service, and this certificate of compliance. This Response complies with the type-volume limitation mandated in 37 C.F.R. § 42.24. In preparing this certificate, counsel has relied on the word count of the word-processing system used to prepare this paper (Microsoft Word).

Dated: July 22, 2022

Respectfully submitted,

/Khue V. Hoang/

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PTO Reg. No. 44,767

**Counsel for Patent Owner**

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a copy of the foregoing **PATENT OWNER'S SUR-REPLY** was served on July 22, 2022, via electronic mail to [VMware-Cirba-IPR@mofo.com](mailto:VMware-Cirba-IPR@mofo.com), as agreed to by counsel, upon the following counsel for Patent Owner:

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