

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**DAEDALUS BLUE LLC,**  
*Appellant*

v.

**KATHERINE K. VIDAL, UNDER SECRETARY OF  
COMMERCE FOR INTELLECTUAL PROPERTY  
AND DIRECTOR OF THE UNITED STATES  
PATENT AND TRADEMARK OFFICE,**  
*Intervenor*

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2023-1312

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Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2021-00830.

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Decided: May 21, 2024

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DENISE MARIE DE MORY, Bunsow De Mory LLP, Redwood City, CA, argued for appellant. Also represented by KEVIN KENT MCNISH, McNish PLLC, Portland, ME.

PETER J. AYERS, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA, argued for intervenor. Also represented by MICHAEL S. FORMAN,

FARHEENA YASMEEN RASHEED, MEREDITH HOPE  
SCHOENFELD.

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Before PROST, CHEN, and HUGHES, *Circuit Judges*.

CHEN, *Circuit Judge*.

Daedalus Blue LLC (Daedalus Blue) appeals the Patent Trial and Appeal Board’s (Board) final written decision finding the petitioner proved by a preponderance of the evidence that all claims of U.S. Patent No. 8,572,612 (‘612 patent) are unpatentable under 35 U.S.C. § 103. *Microsoft Corp. v. Daedalus Blue, LLC*, No. IPR2021-00830, 2022 WL 16551441, at \*1 (P.T.A.B. Oct. 27, 2022) (*Final Written Decision*). Daedalus Blue alleges the Board misconstrued two limitations of representative independent claim 1: (1) “flagging the instance of a [virtual machine (VM)] for autonomic scaling including termination” (the “flagging” limitation), and (2) “deploying . . . an additional instance of the VM” (the “deploying” limitation). Because we do not believe the Board erred in construing either limitation, we *affirm*.

#### I. REPRESENTATIVE CLAIM 1

Independent claim 1 is representative of the issues raised on appeal and recites:

1. A method of autonomic scaling of virtual machines in a cloud computing environment, the cloud computing environment comprising a plurality of virtual machines (‘VMs’), the VMs comprising modules of automated computing machinery installed upon cloud computers disposed within a data center, the cloud computing environment further comprising a cloud operating system and a data center administration server operably coupled to the VMs, the method comprising:

deploying, by the cloud operating system, an instance of a VM, including *flagging the instance of a*

*VM for autonomic scaling including termination* and executing a data processing workload on the instance of a VM;

monitoring, by the cloud operating system, one or more operating characteristics of the instance of the VM;

*deploying*, by the cloud operating system, *an additional instance of the VM* if a value of an operating characteristic exceeds a first predetermined threshold value, including executing a portion of the data processing workload on the additional instance of the VM; and

terminating operation of the additional instance of the VM if a value of an operating characteristic declines below a second predetermined threshold value;

wherein the cloud operating system comprises a module of automated computing machinery, further comprising a self service portal and a deployment engine, and deploying an instance of a VM further comprises:

passing by the self service portal user specifications for the instance of a VM to the deployment engine;

implementing and passing to the data center administration server, by the deployment engine, a VM template with the user specifications; and

calling, by the data center administration server, a hypervisor on a cloud computer to install the VM template as an instance of a VM on the cloud computer.

'612 patent at claim 1 (emphases added).

## II. THE “FLAGGING” LIMITATION

Daedalus Blue contends the “flagging” limitation requires a flag that contains information indicating a VM instance is amenable to autonomic termination. Appellant’s Opening Br. 28. According to Daedalus Blue, the applicant for the ’612 patent made statements during prosecution supporting this construction. *Id.* at 28–29. In an *ex parte* appeal brief, the applicant distinguished the claims from the prior-art reference Yach<sup>1</sup> by arguing:

At this reference point, Yach discloses a virtual machine that sets a “state flag.” Yach’s “state flag” however indicates the state of the virtual [machine]—whether executing or idle. Yach’s flag is set when the virtual machine begins executing. Yach’s flag is cleared when the virtual machine enters an idle state. *Yach’s flag, however, does not indicate whether the virtual machine is amenable to “autonomic scaling including termination” as claimed here.* That is, Yach discloses flagging a virtual machine to indicate whether the virtual machine is idle or executing while the claims, in stark contrast, recite flagging a virtual machine for autonomic scaling including termination. Certainly, Yach fails to even suggest that the virtual machine’s flag is “for autonomic scaling including termination.”

J.A. 966 (emphasis added). The above emphasized statement, Daedalus Blue argues, compels its proposed construction. Appellant’s Opening Br. 29.

We agree with the Board that the prosecution history does not require Daedalus Blue’s proposed construction. *See Final Written Decision*, 2022 WL 16551441, at \*5. In the prosecution history, the applicant argued that Yach’s flags do not indicate that the VM is amenable to

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<sup>1</sup> U.S. Patent No. 7,502,962.

“autonomic scaling including termination” and the purpose of Yach’s flags is not for “autonomic scaling including termination.” The applicant was not, as Daedalus Blue contends, asserting that the “flagging” limitation requires that the specific contents of Yach’s flag indicate the VM is amenable to “autonomic scaling including termination.” We thus, like the Board, reject Daedalus Blue’s attempt to read into the “flagging” limitation a requirement of a flag that contains information indicating the amenability of a VM instance to autonomic termination. We affirm the Board’s construction.

### III. THE “DEPLOYING” LIMITATION

Daedalus Blue asserts that the “deploying” limitation requires creating a new, additional instance of a VM—the “creating” requirement. Appellant’s Opening Br. 33. We disagree.

*First*, Daedalus Blue argues that the language of claim 1—in specifying that “deploying . . . an additional instance of the VM . . . includ[es] executing a portion of the data processing workload on the additional instance of the VM”—requires that the “deploying” limitation involves more than “executing a portion of the data processing workload.” Appellant’s Opening Br. 45–46. The Board erred, in Daedalus Blue’s view, because it failed to consider the “executing” limitation separately from the “deploying” limitation. *Id.* But that argument fails to explain how any such distinction mandates the “creating” requirement that Daedalus Blue seeks to read into the “deploying” limitation. Moreover, the Board relied on two separate functions in the prior art to find that it teaches the “deploying” and “executing” limitations: (1) the prior art’s teaching of dynamically adding additional computing nodes to a computer network, and (2) the prior art’s teaching of using these additional nodes to process a portion of the workload formerly processed by the original VM. *See Final Written Decision*, 2022 WL 16551441, at \*17–20. The claim language thus does not require Daedalus Blue’s proposed construction.

*Second*, Daedalus Blue argues that the remainder of the specification supports its proposed construction. Daedalus Blue relies on one passage describing an “example cloud operating system” that deploys an instance of a VM in accordance with user specifications. Appellant’s Opening Br. 33–35; ’612 patent col. 4 l. 63, col. 5 ll. 17–20. In this example, a data center administration server calls a hypervisor “to install the instance of the VM” and then “records a network address assigned to the *new instance of the VM* as well as a unique identifier for the *new instance of the VM*.” ’612 patent col. 5 ll. 33–39 (emphases added). This stray reference to a “new instance” of a VM, Daedalus Blue avers, establishes that the “deploying” limitation imposes the “creating” requirement. Appellant’s Opening Br. 33–35. This phrase “new instance,” however, appears only in this passage, and this single passage describes only an “*example cloud operating system*.” ’612 patent col. 4 l. 63 (emphasis added). The specification does not limit the act of deploying a VM instance to this example. And even if this passage’s isolated use of the word “new” limited the meaning of the “deploying” limitation, nothing in the passage suggests that the word “new” must refer to a newly *created* instance (and not, for example, a newly *deployed* instance).

Furthermore, contrary to what Daedalus Blue argues, the specification does not consistently describe that deploying refers to creating. For example, the specification describes that the example method of Figure 3 is similar to the example method of Figure 2 but notes that they differ in that deploying an instance of a VM in the Figure 3 method involves installing a “VM template as an instance of a VM (102) on the cloud computer.” ’612 patent col. 11 ll. 27–36. By comparison, the specification does not describe that deploying a VM instance in the example method of Figure 2 involves “install[ation]” of a VM template as a VM instance. *Id.* col. 9 l. 38 – col. 10 l. 20. Therefore, to the extent that Daedalus Blue believes installation of a VM template refers to creation of an instance of a VM, the specification does not consistently describe that deploying a VM

instance involves installing a VM template. Nor does the specification suggest that deploying a VM instance is limited to the example of Figure 3 that involves installing a VM template. We conclude that the specification does not demand that deploying an instance of VM involves creating an instance of a VM.

*Third*, Daedalus Blue criticizes the Board for erroneously “invert[ing] the roles of intrinsic evidence and extrinsic evidence” by starting with general-purpose dictionary definitions rather than starting with the specification. Appellant’s Opening Br. 41–43. But the sequencing of the Board’s consideration of evidence, alone, does not constitute error. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1324 (Fed. Cir. 2005) (en banc) (“Nor is the court barred from considering any particular sources or required to analyze sources in any specific sequence . . .”); *Old Town Canoe Co. v. Confluence Holdings Corp.*, 448 F.3d 1309, 1316 (Fed. Cir. 2006) (“In construing the claim terms in this case, the district court began its analysis by referring to dictionary definitions presented by the parties. The district court’s reference to the dictionary was not an improper attempt to find meaning in the abstract divorced from the context of the intrinsic record but properly was a starting point in its analysis, which was centered around the intrinsic record consistent with *Phillips*.”). Indeed, our court on multiple occasions has considered the meaning of a claim term in the context of the relevant field before we analyzed this term in the context of the intrinsic evidence. *See, e.g., Ancora Techs., Inc. v. Apple, Inc.*, 744 F.3d 732 (Fed. Cir. 2014) (ascertaining the meaning of the claim term “program” in the context of the relevant art before considering this term in the context of the intrinsic evidence); *Starhome GmbH v. AT&T Mobility LLC*, 743 F.3d 849 (Fed. Cir. 2014) (describing the “well-understood meaning in the art” for the claim term “gateway” before considering this term in the context of the intrinsic evidence).

Here, the Board started with the dictionary definitions of the words “deploy” and “create” to highlight that

Daedalus Blue’s proposed construction—which used the word “create”—was inconsistent with the common meaning of the claim term “deploy.” See *Final Written Decision*, 2022 WL 16551441, at \*8. The Board then turned to the specification to explain that nothing in the specification requires displacing the common meaning of the term “deploy” by construing the term “deploy” as “create.” *Id.* Though the Board used dictionary definitions, it did not consider these definitions in a vacuum “entirely divorced from the context of the written description,” *Phillips*, 415 F.3d at 1321, and, in fact, adopted a construction consistent with our precedent that claim construction sometimes “involves little more than the application of the widely accepted meaning of commonly understood words,” *id.* at 1314. In light of our review of the specification as explained above, the Board’s claim construction analysis did not inappropriately elevate the dictionary definitions of “deploy” and “create” above the intrinsic evidence.

*Finally*, at oral argument, Daedalus Blue’s counsel devoted a significant amount of time to the last “wherein” clause of independent claim 1 that further defines steps of deploying an instance of a VM. Oral Arg. 5:55–8:11 (available at [https://oralarguments.cafc.uscourts.gov/default.aspx?fl=23-1312\\_04022024.mp3](https://oralarguments.cafc.uscourts.gov/default.aspx?fl=23-1312_04022024.mp3)). This clause, in relevant part, recites “wherein . . . deploying an instance of a VM further comprises . . . calling, by the data center administration server, a hypervisor on a cloud computer to *install the VM template as an instance of a VM on the cloud computer.*” ’612 patent at claim 1 (emphasis added). At oral argument, rather than exclusively asserting that the language “deploying . . . an additional instance of the VM,” by itself, imposes the “creating” requirement, Daedalus Blue’s counsel argued that the language “install[ing] the VM template as an instance of a VM on the cloud computer” houses this requirement. See Oral Arg. 7:51–8:08. This amounts to a new claim construction argument that Daedalus Blue never raised to the Board and that has not been the focus of the dispute on appeal around the “deploying”



limitation. It is thus forfeited.<sup>2</sup> *Monsanto Tech. LLC v. E.I. DuPont de Nemours & Co.*, 878 F.3d 1336, 1342 n.8 (Fed. Cir. 2018) (finding a claim construction argument forfeited because the appellant failed to raise it to the Board).

In sum, we find the intrinsic evidence does not support Daedalus Blue's proposed construction of the "deploying" limitation and do not believe the Board erred in its use of dictionary definitions. We accordingly affirm the Board's construction of the "deploying" limitation.

#### CONCLUSION

We have considered Daedalus Blue's remaining arguments and find them unpersuasive. For the foregoing reasons, we *affirm*.

#### AFFIRMED

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<sup>2</sup> In any event, Daedalus Blue fails to show why we need to disturb the Board's obviousness determinations as to these limitations. In both its institution decision and final written decision, the Board expressly indicated that Daedalus Blue did not directly challenge the petitioner's contentions as to these limitations and found that the prior art teaches these limitations. J.A. 365–67; *Final Written Decision*, 2022 WL 16551441, at \*21–22. And Daedalus Blue did not challenge these findings before us. See Appellant's Opening Br. 54–63. Accordingly, even if we considered Daedalus Blue's argument, we see no reason to disturb the Board's conclusion that the prior art renders obvious the limitations in the "wherein" clause of claim 1.