

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VMWARE, INC.,
Petitioner,

v.

CLOUDING CORPORATION,
Patent Owner.

Case IPR2014-01304
Patent 7,065,637 B1

Before JAMESON LEE, JONI Y. CHANG, and MICHAEL W. KIM,
Administrative Patent Judges.

CHANG, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

VMware, Inc. (“VMware”) filed a Petition requesting an *inter partes* review of claims 1–4 and 6–9 of U.S. Patent No. 7,065,637 B1 (Ex. 1001, “the ’637 patent”). Paper 1, “Pet.” In response, Patent Owner Clouding Corporation (“Clouding”) filed a Preliminary Response. Paper 8, “Prelim. Resp.” Taking into account Clouding’s Preliminary Response, we determined that there was a reasonable likelihood that VMware would prevail with respect to at least one of the challenged claims. Pursuant to 35 U.S.C. § 314, we instituted this trial, on February 5, 2015, as to all the challenged claims, namely claims 1–4 and 6–9. Paper 14 (“Dec.”).

Subsequent to institution, Clouding filed a Patent Owner Response (Paper 23, “PO Resp.”), and VMware filed a Reply to the Patent Owner Response (Paper 25, “Pet. Reply”). An oral hearing was held on September 8, 2015.¹

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). For the reasons set forth below, we conclude that VMware has demonstrated by a preponderance of the evidence that claims 1–4 and 6–9 of the ’637 patent are unpatentable.

¹ The oral arguments for the instant proceeding and Case IPR2014-01305 were consolidated. A transcript of the hearing has been entered into the record as Paper 34 (“Tr.”).

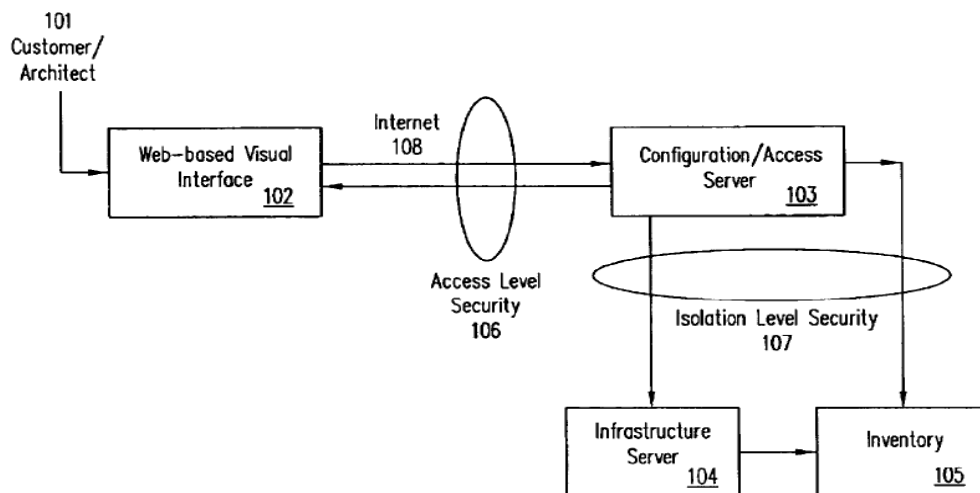
A. Related Matter

The parties indicate that the '637 patent was asserted in *Clouding Corp. v. EMC Corp.*, No. 1:14-cv-01178 (D.Del.), in which VMware is a co-defendant. Papers 6, 7.

B. The '637 Patent

The '637 patent relates to an interactive system for computer system architects to design and create a computing environment dynamically. Ex. 1001, Abs., 1:17–23, 2:66–3:1. In particular, the '637 patent describes an interactive system that permits computer system architects to design a computing environment by allocating resources (e.g., hardware, software, or communication components) and specifying how the resources are to be used. *Id.* at Abs., 4:17–19.

Figure 1 of the '637 patent, reproduced below, depicts a block diagram of a system for configuring a computing environment:



As shown in Figure 1, customer 101 (e.g., a computer system architect) uses web-based visual interface 102 and Internet 108 to interact with server system 103 for allocating resources. *Id.* at 5:13–35. In response to the customer's request, server 103 allocates resources based on the customer's requirements and the availability of resources in inventory 105. *Id.* Access level security layer 106 and isolation level security layer 107 ensure that customer 101 can access the server and resources, without any other customer being aware of the information passed between web-based visual interface 102 and server 103, such as the specific configuration or computing environment used by customer 101. *Id.*

C. Illustrative Claim

Of the challenged claims, claims 1 and 9 are the only independent claims. Claims 2–4 and 6–8 depend, either directly or indirectly, from claim 1. Claim 1 is illustrative of the claimed subject matter of the '637 patent, and is reproduced below:

1. A system for providing configurable resources to create a computing environment, the system comprising
 - a configurable communication link;
 - a plurality of hardware devices coupled to the communication link;
 - a plurality of software programs executable by the hardware devices, the software programs comprising at least one of operating system software and application software, wherein the computing environment comprises the

communication link, at least one of the hardware devices and at least one of the software programs; and

a visual construction of the computing environment via a user interface, the user interface coupled to a display screen and to an input device for generating signals in response to interactions of a user, wherein

the user interface is configured to accept a signal which enables the user to *request a copy [of] a device configuration*,

the system is configured to *make the copy of the device configuration* and *save the copy of the device configuration in storage*,

the user interface is further configured to accept a signal which enables the user to instantiate a device from a stored configuration, and

the system is further configured to instantiate the device from the stored configuration.

Ex. 1001, 7:49–8:8 (emphases added).

D. Prior Art Relied Upon

VMware relies upon the following prior art references:

Aziz	US 6,779,016 B1	Aug. 17, 2004	(Ex. 1002)
Patterson	US 7,093,005 B2	Aug. 15, 2006	(Ex. 1003)
Sanchez-Frank	US 5,394,522	Feb. 28, 1995	(Ex. 1005)
Verissimo	US 5,841,654	Nov. 24, 1998	(Ex. 1006)

E. Instituted Grounds of Unpatentability

We instituted the instant trial based on the following grounds of unpatentability:

References	Basis	Claims
Patterson	§ 102(e)	1–4 and 6–9
Aziz and Sanchez-Frank	§ 103(a)	1–4 and 6–9

II. ANALYSIS

A. Claim Construction

As a first step in our analysis, we determine the meaning of the claims. In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Technologies, LLC*, 793 F.3d 1268, 1277–1279 (Fed. Cir. 2015) (“Congress implicitly approved the broadest reasonable interpretation standard in enacting the AIA,”² and “the standard was properly adopted by PTO regulation.”). Under this standard, claim terms generally are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may rebut that presumption by providing a definition of the term in the

² Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”).

specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

With the above-stated principles in mind, we construed the following terms in the Decision on Institution: “visual construction” and “constraints on the hardware.” Dec. 8–10. Subsequent to institution, neither party challenges any aspect of our claim constructions as to these terms. *See generally* PO Resp.; Reply 2–3. Upon review of the entire record before us, including the parties’ explanations and supporting evidence concerning these terms, we discern no reason to change those claim constructions for purposes of this Final Written Decision.

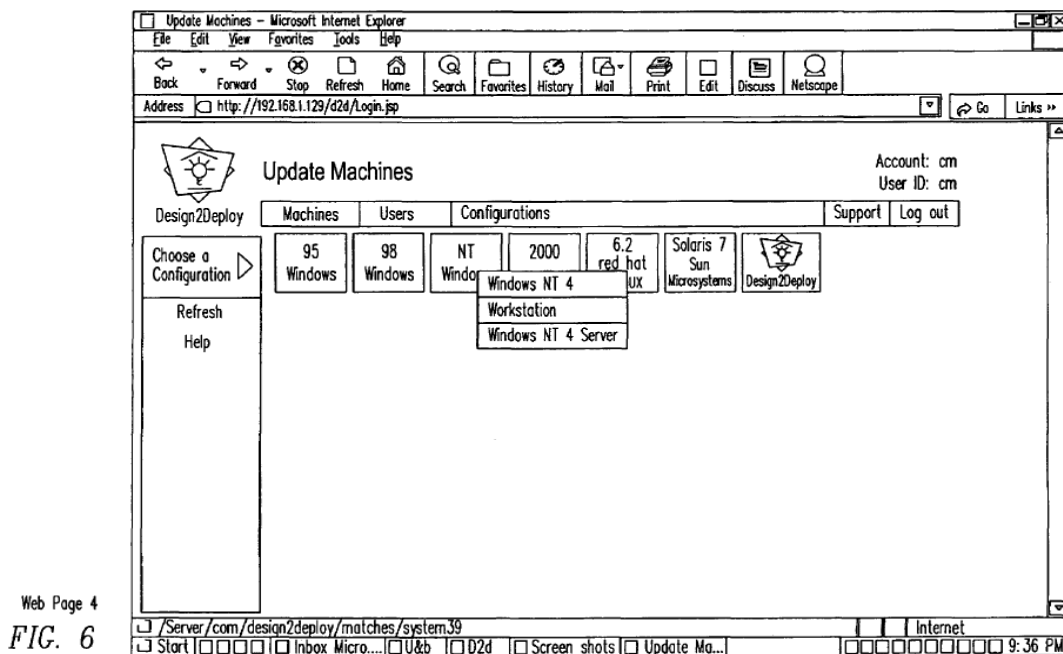
For convenience, those claim constructions from the Decision on Institution are reproduced below:

Claim Terms	Claim Constructions
“visual construction” (claim 1)	A representation of the combination of hardware, software, and communication components. The representation may include at least one of the following: (1) a textual representation; and (2) a graphical representation. Dec. 8–9.
“constraints on the hardware” (claims 6 and 9)	A limit on system parameters associated with a hardware component. Dec. 9–10.

“display a plurality of configurations”

For purposes of this Final Written Decision, we determine that it is necessary to construe expressly the claim term “display a plurality of configurations.” Claim 4 recites “wherein the user interface is further configured to *display a plurality of configurations* before accepting a first signal which enables the user to specify a type of configuration.” Ex. 1001, 8:27–30 (emphasis added).

As Clouding points out (PO Resp. 10–12), Figure 6 of the ’637 patent, reproduced below, illustrates a user interface that is configured to display a plurality of configurations.



As shown in Figure 6 of the ’637 patent, the user interface displays icons for workstations configured with operating systems and specific intended usages (e.g., “Windows NT 4,” “Workstation,” and “Windows NT

4 Server”). Ex. 1001, 6:51–59. According to the Specification, based on the selection made by the user, the configuration server allocates a computer with the requested operating system and other application software. *Id.*

In light of the Specification of the ’637 patent, we construe the claim term “display a plurality of configurations” broadly, but reasonably, to encompass displaying a plurality of icons representing machines that are configured with operating systems for specific intended usage.

B. Principles of Law

To establish anticipation, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008); *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001).

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art;

(3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

The level of ordinary skill in the art is reflected by the prior art of record. See *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

We analyze the instituted grounds of unpatentability in accordance with the above-stated principles.

C. Anticipation by Patterson

VMware asserts that claims 1–4 and 6–9 are unpatentable under 35 U.S.C. § 102(e) as anticipated by the Patterson patent.³ Pet. 16–19. Clouding counters that VMware fails to establish that the Patterson patent is prior art under § 102(e)(2) against the claims of the '637 patent. PO Resp. 14–17. For the reasons set forth below, we agree with Clouding.

Subsequent to institution of the instant trial, the United States Court of Appeals for the Federal Circuit issued *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378–79 (Fed. Cir. 2015), clarifying the petitioner's burden of proof with respect to a reference patent's entitlement to the benefit of the filing date of a provisional application. *Id.* at 1378–82.

³ Because the '637 patent was issued from an application that was filed before the effective date of the AIA, we refer to the pre-AIA version of 35 U.S.C. §§ 102, 103, 112, 119, and 120 in this Decision.

Specifically, in an *inter partes* review, the petitioner has the ultimate burden of persuasion to prove “unpatentability by a preponderance of the evidence,” and this burden never shifts to the patent owner. *Id.* at 1378–79 (citing 35 U.S.C. § 316(e); *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008)). Also, the petitioner has the initial burden of production—a burden of going forward with evidence. *Id.* at 1379–80.

Further, the Federal Circuit clarified that there is no presumption that a reference patent is necessarily entitled to the benefit of the filing date of a provisional application, or an earlier-filed nonprovisional application if the reference patent was issued from a continuation-in-part application. *Id.* at 1380 (“[B]ecause the PTO does not examine priority claims unless necessary, the Board has no basis to presume that a reference patent is necessarily entitled to the filing date of its provisional application.”); *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1305 (Fed. Cir. 2008) (“When neither the PTO nor the board has previously considered priority, there is simply no reason to presume that claims in a [continuation-in-part] application are entitled to the effective filing date of an earlier filed application.”).

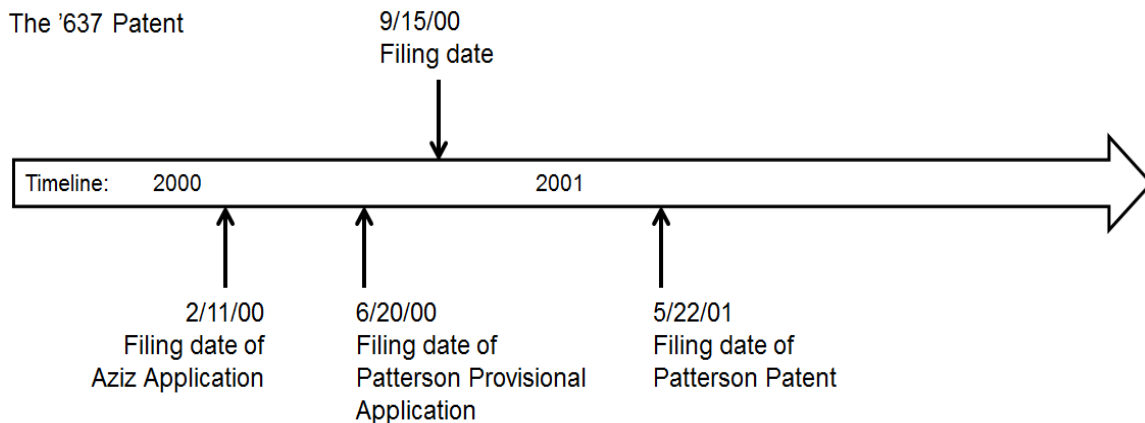
“A reference patent is only entitled [under § 119(e)(1)] to claim the benefit of the filing date of its provisional application if the disclosure of the provisional application provides support for *the claims in the reference patent* in compliance with § 112, ¶ 1.” *Dynamic Drinkware*, 800 F.3d at 1381 (citing *In re Wertheim*, 646 F.2d 527, 537 (CCPA 1981)) (emphasis added). Also, a reference patent is entitled under § 120 to the benefit of the

filing date of an earlier-filed nonprovisional application if the disclosure of that application provides adequate written description for *the claims in the reference patent* in compliance with § 112, ¶ 1. *Wertheim*, 646 F.2d at 537.

Here, VMware—as Petitioner in the instant *inter partes* review, who asserts that the Patterson patent is prior art under § 102(e)(2) against the claims of the '637 patent—has the burden of persuasion to prove that the challenged claims are unpatentable by a preponderance of the evidence, and this burden never shifts to Clouding. Further, because the Patterson patent was issued from an application filed on May 22, 2001, which is after the filing date of the '637 patent (September 15, 2000), VMware also has the burden of production with respect to an effective filing date of the Patterson patent prior to the filing date of the '637 patent.⁴ Ex. 1003, at [21], [22]; Ex. 1001, at [22]. For the reasons discussed below, we conclude that VMware fails to satisfy its burden of production.

⁴ We are cognizant that the '637 patent claims the benefit of the filing date of a provisional application. Ex. 1001, at [60]. That benefit date, August 24, 2000, still is subsequent to the two possible effective filing dates of Patterson shown in the timeline below, and thus does not affect the determination of whether the Patterson patent is prior art to the '637 patent. Therefore, we need not address further whether the '637 patent is entitled to the benefit of the filing date of the earlier-filed provisional application.

The relevant dates are shown in the timeline below:



Patterson patent claims the benefit of the filing date of the Aziz application, as a CIP, and the filing date of the Patterson provisional application

The Patterson patent, on its face, claims under § 119(e)(1) the benefit of the filing date of U.S. Provisional Application No. 60/212,925 filed on June 20, 2000 (Ex. 1004, “the Patterson provisional application”). Ex. 1003 at [60]. The Patterson patent also claims under § 120 (as a continuation-in-part) the benefit of the filing date of U.S. Application 09/502,170 filed on February 11, 2000 (Ex. 3001, “the Aziz nonprovisional application”), which issued as the Aziz patent. *Id.* at [63]. The filing date of each earlier-filed application antedates the filing date of '637 patent (September 15, 2000). Ex. 1001, at [60]. In short, the Patterson patent is prior art to the '637 patent if the Patterson patent is entitled to the benefit of the filing date of the Patterson provisional application or the Aziz nonprovisional application.

VMware contends that the Patterson patent is prior art under § 102(e)(2) because the Patterson provisional application provides adequate

written description support for the disclosures of the Patterson patent. Pet. 18–19 (citing Ex. 1007 ¶¶ 55–57); Reply 14–16. To support its contention, VMware explains how the Aziz patent and the Patterson provisional application, which incorporates the Aziz nonprovisional application by reference, disclose the subject matter recited in *the claims of the '637 patent*. See, e.g., Pet. 18–19, 26–31; Reply 14–16.

VMware, however, does not explain how the Patterson provisional application or the Aziz nonprovisional application provides adequate written description support for *the claims of the Patterson patent* in compliance with § 112, ¶ 1. See generally Pet.; Reply. Therefore, VMware fails to demonstrate that the Patterson patent is entitled to the benefit of the filing date of the Patterson provisional application or the Aziz nonprovisional application. Consequently, VMware has not established that the Patterson patent is prior art to the '637 patent.

For the foregoing reasons, we determine that VMware has not demonstrated by a preponderance of the evidence that claims 1–4 and 6–9 are unpatentable under § 102(e) as anticipated by the Patterson patent.

D. Obviousness over Aziz and Sanchez-Frank

VMware asserts that claims 1–4 and 6–9 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Aziz and Sanchez-Frank. Pet. 19–60. In support of this asserted ground of unpatentability, VMware provides detailed explanations as to how each

claim limitation is met by the combination of the cited prior art references and articulates a rationale for combining the technical teachings of Aziz and Sanchez-Frank. *Id.* VMware also relies upon the Declaration of Dr. José Fortes to support its contentions. Ex. 1007.

Clouding opposes, arguing that the combination of the cited prior art references fails to suggest a system that is configured to make a copy of a device configuration and save it in storage, as recited in claims 1 and 9, and fails to suggest a user interface that is configured to display a plurality of configurations, as recited in claims 4 and 9. PO Resp. 2–14.

In the discussion below, we begin with a brief summary of the cited prior art references, and then we address the parties’ contentions in turn, focusing on the deficiencies alleged by Clouding.

Aziz

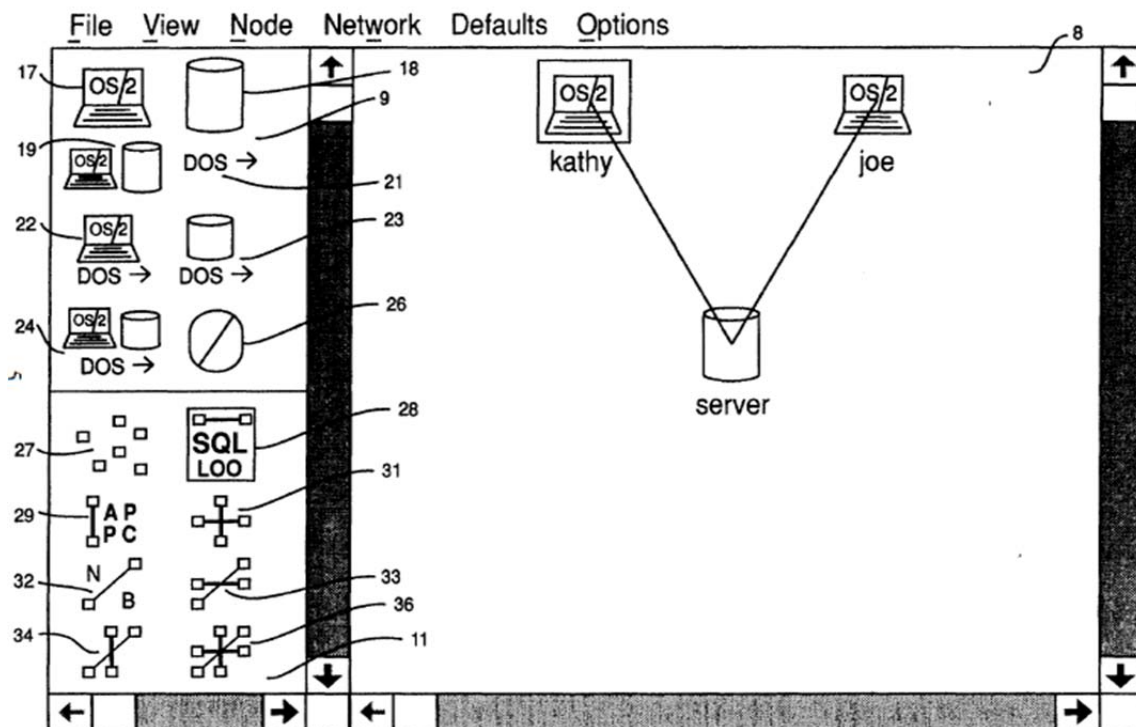
Aziz discloses a method and apparatus for providing an extensible, flexible, and scalable computer system—a tool for designing and configuring a dynamic computing environment. Ex. 1002, 1:8–11, 4:13–14. According to Aziz, to solve systems planning, designing, constructing, and operating issues, many builders of web sites and other computing organizations hosted their enterprise web sites at a third party site and co-locate with other web sites or enterprises. *Id.* at 1:14–40. Moreover, economies of scale are achieved by physically constructing a wide scale computing fabric (“a Computing Grid”) once, and securely and dynamically

allocating portions of the Computing Grid to various organizations on demand. *Id.* at 3:28–32.

Each organization's logical portion of the Computing Grid is referred to as a Virtual Server Farm (VSF), which can be changed dynamically in terms of the number central processing units (CPUs), storage capacity, and network bandwidth based on real-time demands placed on the server farm or other factors. *Id.* at 4:29–35. Each VSF hosts the content and applications of an organization. *Id.* at 4:51–53. Using a graphic user interface—a set of web pages—the organization can configure or modify a customized VSF by selecting the computing elements, hardware, and software for the VSF. *Id.* at 5:3–8, 15:31–51. The organization retains independent administrative control of its VSF, controlling the computing elements and associated networking and storage elements. *Id.* at 4:31–32, 4:54–5:8.

Sanchez-Frank

Sanchez-Frank describes a system for configuring communication and database networks in a user friendly graphical environment and automatically generating related configuration files. Ex. 1005, Abs. Sanchez-Frank's system provides a graphical user interface to allow users to use graphical representations to define the network elements. *Id.* at 3:39–53. Figure 4 of Sanchez-Frank, reproduced below, illustrates an example of a graphical user interface.



As shown in Figure 4 of Sanchez-Frank, the graphical user interface displays a graphical representation of a customized network in workspace 8. *Id.* at Abs. 3:39–4:65. The user is permitted to define multiple network workstation nodes using icons (e.g., OS/2 operating system database requester workstation 17 and OS/2 operating system database server workstation 18 in selection pane 9), specify the resources associated with each icon, define connections between icons using specified protocol constraints (e.g., SQL LOO communication LAN connection icon 28 and advance program to program communication network connection icon 29 in selection pane 11), validate the customized network, and generate the associated configuration files for the workstation nodes. *Id.* The created

network topology information can be stored, retrieved, and modified. *Id.* at Abs, 2:32–34, 6:17–32.

A copy of a device configuration

Claims 1 and 9 each recite:

the *user interface* is configured to accept a signal which enables the user to *request a copy [of] a device configuration*,

the *system* is configured to *make the copy of the device configuration* and *save the copy of the device configuration* in storage.

Ex. 1001, 7:64–8:3 (emphases added). Claims 2–4, and 6–8, which depend directly or indirectly from claim 1, also require these limitations.

VMware takes the position that the combination of Aziz and Sanchez-Frank discloses the aforementioned “copy” limitations. Pet. 33–35. In particular, VMware maintains that Aziz discloses a user interface that is configured to allow users to request a copy of a pre-defined logical blueprint (a device configuration), and the system that is configured to make and save the copy of the device configuration in storage. Pet. 33–34 (citing Ex. 1002, 8:1–12); Ex. 1007 ¶¶ 95–97, 103 (citing Ex. 1002, 15:42–51). VMware also alleges that Sanchez-Frank’s graphical user interface enables users to store, recall, redefine, and retransmit network parameters with relative ease by graphical manipulation. Pet. 34–35; Ex. 1005, 2:32–34, 6:17–32, 8:24–33, Figs. 8, 16–19.

Clouding counters that the prior art combination does not suggest the aforementioned “copy” limitations recited in claims 1 and 9. PO Resp. 2–10. In particular, Clouding alleges that Aziz’s pre-defined logical blueprint

“is not a blueprint that is being *created* by a user, it is instead one that exists for the user to select from.” *Id.* at 5–6 (emphasis added). Clouding further submits that Aziz does not disclose “sav[ing] the copy of the device configuration in storage” because Aziz describes “the pre-existing nature of the blueprints as being stored” and not “a user storing copies of the blueprints.” *Id.* at 6–7. Clouding also argues that Sanchez-Frank’s save and replicate functions can only save and replicate *graphical illustrations* of device configurations and not the device configuration itself. *Id.* at 7–10.

Upon consideration of each cited prior art reference in its entirety, we are not persuaded by Clouding’s arguments. In an obviousness analysis, we must consider the combination of references, as a whole, in light of the general knowledge of an ordinarily skilled artisan. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

At the outset, we observe that the claims at issue do not require a user interface that enables the user to *create* a copy of a device configuration, as is evidently alleged by Clouding. Rather, the claim language requires a user interface that is configured to enable “the user to *request* a copy [of] a device configuration.” Ex. 1001, 7:66–67 (emphasis added). The claim language also does not require the *user* to make or save the copy of the device configuration, as alleged by Clouding, but instead requires that “the *system* is configured to make the copy of the device configuration and save [it] in storage.” *Id.* at 8:1–3 (emphasis added).

As Dr. Fortes explains, Aziz discloses situations in which a user requests a copy of a device configuration and the system makes a copy of

that configuration and saves it to storage. Ex. 1016 ¶ 12. For instance, Aziz discloses a user interface (a set of web pages) that allows users to create and modify a customized VSF, “by specifying . . . the hardware and software platform used for each element, and things such as what kind of Web server, application server, or database server software should be preconfigured on these computing elements.” Ex. 1002, 15:31–16:22. As Clouding acknowledges, “Aziz teaches a solution in which a user is permitted to select from a set of pre-defined logical blueprints in order to assign various computing elements of a VSF different roles (e.g., Web server, application server, database server, etc.).” PO Resp. 6; Ex. 1002, 8:1–12. There is no dispute that Aziz’s system is configured to make and save a copy of the customized VSF, which includes a copy of the pre-defined logical blueprint selected by the user, because Aziz’s system allows the user subsequently to change the parameters of the customized VSF, by adding or removing a processor or other computing elements. *Id.* at 9:15–10:37, 16:1–11, Figs 5A–6; *see also id.* at 10:21–24 (“[T]he organization that owns or operates the VSF wants another server, and has added it through an administrative mechanism, such as a privileged web page which allows it to add more servers to its VSF.”); 16:12–15 (“Through the privileged access mechanism the customer can . . . adjust the characteristics of a VSF based on the real-time information.”). Also, Dr. Fortes testifies that one with ordinary skill in the art would have understood that “at least some of the blueprints used to boot computing elements may be created by users,” and those

configurations are saved as files or other storage format. Ex. 1016 ¶¶ 12–14; Ex. 1002, 8:1–12.

Furthermore, contrary to Clouding’s argument that Sanchez-Frank saves and replicates *graphical illustrations* of device configurations and not the device configuration itself (PO Resp. 7–8), Sanchez-Frank discloses a graphical user interface that allows users to save and replicate *device configurations*. Ex. 1005, 6:13–48 (“FIG. 11 relates to the generation of *configuration files for a network* that has been defined, including the automated installation thereof for networks having requisite LAN requester/server resources” (emphasis added)). Notably, Sanchez-Frank describes a system for configuring communication and database networks in a user friendly graphical environment and automatically generating related *configuration files*. *Id.* at Abs. Sanchez-Frank’s graphical user interface allows users to store, recall, redefine, and re-transmit *network parameters*. Ex. 1005, Abs. (“The network topology information so created can be stored, retrieved, and modified as necessary to suit the needs of an evolving network”), 2:32–34 (“The network parameters are capable of being stored, recalled, redefined and retransmitting with relative ease by graphical manipulation.”). As Dr. Fortes testifies, network parameters are understood by one with ordinary skill in the art to be “an arrangement of software, hardware and communication protocols, and hence necessarily include device configurations.” Ex. 1016 ¶¶ 15–17. Accordingly, Sanchez-Frank discloses saving the device configuration itself, and not just the graphical illustrations of the network.

Based on evidence before us, we are persuaded that VMware has established by a preponderance of evidence that the combination of Aziz and Sanchez-Frank, as a whole, describes: (1) an user interface that enables a user to *request* a copy of a device configuration, and (2) a system that is configured to *make* a copy of that configuration and *save* it to storage, as recited in claims 1 and 9. Moreover, we observe that VMware articulates a sufficient rationale to combine the teachings of Aziz and Sanchez-Frank. Pet. 21–24 (citing Ex. 1007 ¶¶ 66–70). Specifically, VMware states that a person of ordinary skill in the art would have combined Aziz’s system with Sanchez-Frank’s graphical user interface so that users may design and configure VSF or Data Centers using a user-friendly graphical interface, making Aziz’s system more “user friendly.” *Id.*

Display a plurality of configurations

Claim 4, which depends ultimately from claim 1, recites “wherein the user interface is further configured to *display a plurality of configurations* before accepting a first signal which enables the use to specify a type of configuration.” Ex. 1001, 8:27–30 (emphasis added). Claim 9 recites a similar limitation. *Id.* at 9:19–21. As discussed above, the claim term “display a plurality of configurations” encompasses displaying a plurality of icons representing machines that are configured with operating systems for specific intended usage.

Clouding maintains that the combination of Aziz and Sanchez-Frank does not render obvious the aforementioned limitation recited in claims 4

and 9. PO Resp. 10–14. According to Clouding, Sanchez-Frank describes a user interface configured to display *computing elements*, and not configurations, and Aziz “makes no mention of displaying any of the blueprints.” *Id.*

We observe, however, that Sanchez-Frank’s icons are not representing merely computing elements, as alleged by Clouding, but rather device configurations (e.g., “OS/2 operating system database requester workstation,” and “DOS database requester workstation”). Ex. 1005, 4:27–42, Fig. 4. As Dr. Fortes testifies, Sanchez-Frank’s icons represent configurations just as the icons disclosed in Figure 6 of the ’637 patent (“NT windows workstation,” and “Windows NT 4 server”) reflect configurations because, in both Sanchez-Frank and the ’637 patent, the icons specify machines configured with operating systems for specific intended usages. Ex. 1016 ¶¶ 20–21; Ex. 1001 6:51–59, Fig. 6; Ex. 1005, 4:27–42, Fig. 4.

Further, as discussed above, Aziz’s user interface enables users to create and modify a customized VSF. Ex. 1002, 15:31–16:22. As Clouding acknowledges, “Aziz teaches a solution in which a user is permitted to select from a set of pre-defined logical blueprints in order to assign various computing elements of a VSF different roles (e.g., Web server, application server, database server, etc.).” PO Resp. 6; Ex. 1002, 8:1–12. Dr. Fortes testifies that one with ordinary skill in the art would have understood that Aziz’s user interface “would identify the potential available blueprints (i.e., device configurations) in some way.” Ex. 1016 ¶ 18. According to Dr. Fortes, in the combination of Aziz and Sanchez-Frank, “the system

would display the ‘blueprints’ of Aziz as icons and those blueprints are device configurations as claimed in the ’637 Patent.” *Id.* ¶ 21.

Given the evidence before us, we are persuaded that VMware has established by a preponderance of evidence that the combination of Aziz and Sanchez-Frank, as a whole, suggests a user interface that is configured to display a plurality of configurations before accepting a first signal which enables the user to specify a type of configuration, as recited in claims 4 and 9.

Conclusion for the obviousness analysis

For reasons stated above, we determine that VMware has demonstrated by a preponderance of evidence that the subject matter of each of claims 1–4 and 6–9, as a whole, is unpatentable under § 103(a) as obvious over the combination of Aziz and Sanchez-Frank.

III. CONCLUSION

For the foregoing reasons, although VMware has not demonstrated that claims 1–4 and 6–9 of the ’637 patent are anticipated by Patterson, we determine that VMware has demonstrated by a preponderance of the evidence that claims 1–4 and 6–9 of the ’637 patent are unpatentable as obvious over Aziz and Sanchez-Frank.

IV. ORDER

For the foregoing reasons, it is
ORDERED that claims 1–4 and 6–9 of the '637 patent are held
unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision,
parties to the proceeding seeking judicial review of the decision must
comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2014-01304
Patent 7,065,637 B1

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