UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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EBAY INC., ALIBABA.COM HONG KONG LTD., AND
BOOKING.COM B.V.,

Petitioner,

v.

GLOBAL EQUITY MANAGEMENT (SA) PTY. LTD.,

Patent Owner.

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Case IPR2016-01828
Patent 6,690,400 B1

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Before KARL D. EASTHOM, MATTHEW R. CLEMENTS, and
KEVIN C. TROCK, *Administrative Patent Judges*.

TROCK, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

EBay Inc., Alibaba.com Hong Kong Ltd., and Booking.com B.V. ("Petitioner") filed a Petition (Paper 1, "Pet.") to institute an *inter partes* review of claims 1, 2, 16, and 28 of U.S. Patent No. Patent 6,690,400 B1 (Ex. 1001, "the '400 patent"). Global Equity Management (SA) Pty. Ltd. ("Patent Owner") filed a Preliminary Response to the Petition. Paper 11 ("Prelim. Resp."). We instituted an *inter partes* review of claims 1 and 2 of the '400 patent. Paper 14 ("Dec. to Inst."). Patent Owner filed a Patent Owner Response (Paper 28, "PO Resp."), Petitioner filed a Petitioner Reply (Paper 43, "Pet. Reply"), and a hearing was held on January 22, 2018, a transcript of which has been entered into the record (Paper 60, "Tr.").

We have jurisdiction under 35 U.S.C. § 6(b). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). We base our decision on the preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). Having reviewed the arguments of the parties and the supporting evidence, we find that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 2 of the '400 patent would have been obvious over the teachings of the Partition Magic 3.0 User Guide, PowerQuest Corporation, 1997 ("3.0 User Guide").

B. The '400 Patent

The '400 patent explains that the "invention is a Graphic User Interface [GUI] that enables a user to virtualize a computer system and to define secondary storage physical devices, in single or multiple/super operating system environments." Ex. 1001, 3:30–33. The GUI enables a user to define secondary storage physical devices through the graphical

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depiction of cabinets. Ex. 1001, Abstract. The GUI allows the user to assign each cabinet a name, and to define the cabinet by its software, which may include single or multiple operating systems, programs and/or data files. *Id.* The GUI enables computers to allocate computer resources graphically to one or more operating systems from the same or different software developers and to select one or more of the existing environments to boot and run on the computer. *Id.* at 1:40–44.

Figure 1 of the '400 patent (below) depicts one view of the GUI (10). Ex. 1001, 4:36. According to the '400 patent, the GUI (10) shows the Main Pull Down Menu Bar (60), Main Toolbar (65), Cabinet Selection Button Bar (70), Cabinet Properties Window (30), Secondary Storage Partitions Window (80), Active Selected Cabinet Visible Partition Window (90), and URL Internet Button Bar (95). Ex. 1001, 5:53–59. Figure 1 of the '400 patent is reproduced below:
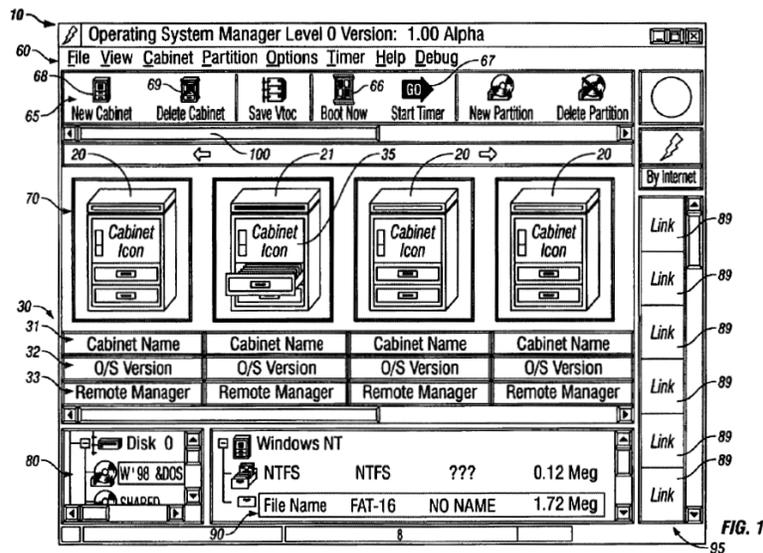
Ex. 1001, Fig. 1. Figure 1 shows a graphical user interface of the '400 patent.

C.   *Claims 1 and 2 of the '400 Patent*

As noted above, we instituted trial on claims 1 and 2 of the '400

patent. Claim 1 is independent and is set out below. Claim 2 depends from

claim 1.

1. A graphic user interface for displaying means for allocating a
computer device's resources to multiple operating system environments,
partitioned on individual virtual cabinets, on said computer device, said
graphic user interface comprising:
     a main menu bar;
     a cabinet selection button bar;
     said cabinet selection button bar graphically representing at least one
virtual cabinet;
     each said at least one virtual cabinet representing a discrete operating
system;
     a secondary storage partitions window;
     a cabinet visible partition window;
     said secondary storage partitions window graphically illustrating at
least one partition of at least one secondary storage device;
     said cabinet visible partition window graphically illustrating a cabinet
record corresponding to a selected virtual cabinet on said cabinet selection
button bar; and
     each said at least one cabinet visible partition window representing an
operating system plus application software, databases and memory
configured with said selected virtual cabinet.

Ex. 1001, 8:62–9:18

II. DISCUSSION

A. *Claim Construction*

In an *inter partes* review, claim terms in an unexpired patent, such as

the '400 patent, are given their broadest reasonable construction in light of

the specification of the patent. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs.,*

LLC v. Lee, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the

broadest reasonable construction as the standard to be applied for claim

construction in *inter partes* reviews). Under this standard, and absent any special definitions, we give claim terms their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Moreover, only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

Petitioner identifies certain claim terms of the '400 patent that were proposed for construction in *Global Equity Management (SA) Pty. Ltd. v. Expedia.com, et al.*, Case No. 2:16-cv-0095 (E.D. Tex.) ("Lead Case"[1]), including "cabinet selection button bar," "virtual cabinet[s]," and others, arguing that these terms should be construed broadly enough to encompass the constructions proposed by Patent Owner in the Lead Case. Pet. 13–17 (citing Ex. 1009, 7–15). In its Preliminary Response, Patent Owner stated that, unless noted otherwise, the district court's construction in the Lead Case "present[s] the broadest reasonable constructions in view of one of ordinary skill in the art." Prelim. Resp. 7 *et seq.* [2] In the Patent Owner Response, Patent Owner does not address directly Petitioner's arguments with respect to claim construction, nor does Patent Owner propose expressly alternative constructions. *See* PO Resp. *passim*.

Petitioner argues that Patent Owner waived any claim construction arguments by not addressing them in the Patent Owner Response. Pet.

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[1] Petitioner identifies thirty-seven related cases (Pet. 7–10), but refers to Case No. 2:16-cv-0095 (E.D. Tex.) as the "Lead Case" (*id.* at 13).

[2] The court in the Lead Case issued subsequently a Claim Construction Memorandum Opinion and Order. *See* Ex. 1010.

Reply 6. At oral argument, Petitioner's counsel and Patent Owner's counsel both agreed that the district court's construction in the Lead Case with respect to the claim term "virtual cabinet" was acceptable. Tr. 18: 18–20; 25: 6–8, 17–20; 28: 10–13; 31: 8–15; 39: 1–5; 40: 5–8; 41: 13–17.

The district court construed the term "virtual cabinet" as follows: "'virtual cabinet,' 'cabinet record,' and 'virtual cabinet record' each means 'virtual storage device, capable of containing, typically through the use of virtual table of content pointers, all (or partitions of) shared (or non-shared) operating systems, application software (both OS dependent and No-OS embedded), databases and memory.'" Ex. 1010, 32–33. The district court's construction of "virtual cabinet" is derived from the '400 patent's definition of the term "cabinet." *See e.g.* Ex. 1001, 2:47–52; 5:24–29. The '400 patent equates the terms "cabinet," "Cabinet Record," and "Virtual Cabinet." *Id.* at 2:46–47; 5:22–24. Because the district court's construction of "virtual cabinet" is reasonable and is based upon the express definition of "cabinet" found in the '400 patent, we accept and adopt the district court's construction." Our analysis does not require the express construction of any additional claim terms.

B. Level of Ordinary Skill in the Art

In determining whether an invention would have been obvious at the time it was made, we consider the level of ordinary skill in the pertinent art at the time of the invention. *Graham*, 383 U.S. at 17. "The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry." *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991).

Petitioner argues that a person of ordinary skill in the art ("POSITA") relevant to the '400 patent would have had a bachelor's degree in computer science, computer engineering, or the equivalent, and at least two years' experience in computer operating systems, programs and databases, and/or graphical user interfaces. Pet. 12 (citing Ex. 1002 ¶¶ 25–27).

Patent Owner argues that a person of ordinary skill in the art at the time of the invention would have had "a B.S. degree (or equivalent) in computer engineering or computer science, and four years of experience in virtualization and the design of GUI[]s in the field of virtualization." PO Resp. 14 (citing Ex. 2007 ¶ 47). "Such a person," Patent Owner argues, "would also have been familiar with computer architecture, operating system architecture, and boot procedures." *Id.*

The parties differ in their positions with respect to the minimum number of years of experience a POSITA would possess (2 years versus 4 years) and what that particular experience would include (computer operating systems, programs and databases, and/or graphical interfaces versus computer architecture, operating system architecture, and boot procedures).

Petitioner argues that Patent Owner's proposed level of skill is unreasonably high. Pet. Reply 11–12. Petitioner argues that Mr. Rafizadeh, a named inventor on the '400 patent, would not qualify as a POSITA under Patent Owner's proposed standard, because Mr. Rafizadeh did not start working on virtualization until 1997, and would not have had four years of experience in virtualization as of the filing date of the '400 patent application. *Id.* (citing Ex. 1026, 22:4–6; Ex. 2007 ¶¶ 21–22). Moreover, Petitioner argues, the other individuals Mr. Rafizadeh believed to be

POSITAs at the time of the invention—such as Parviz Moayyad, Peter Druschell, and Jeff Barnes—all had been working on virtualization for only two years as of 1999, and thus would not have qualified as POSITAs under Patent Owner's proposed level of skill. *Id.* at 12 (citing Ex. 1026, 54:11–20, 56:2–10). Petitioner also notes that Patent Owner's Declarant, Dr. Rosenberg, proposed a definition of a POSITA that did not require four years of experience in virtualization. *Id.* (citing Ex. 2002 ¶ 33).

We agree with Petitioner that Patent Owner's proposed level of skill is unreasonably high. The educational background and experience of those working in the field, including the inventor, are factors considered, among others, in determining the appropriate level of ordinary skill. *Daiichi Sankyo Co., Ltd. v. Apotex, Inc.*, 501 F.3d 1254, 1257 (Fed. Cir. 2007). Here, however, Patent Owner proposes years of experience in computer virtualization beyond that held by the inventor and other acknowledged skilled artisans working in the field at the time of the claimed invention. Accordingly, we decline to adopt Patent Owner's proposed years of experience in virtualization and find that a POSITA would be a person with a bachelor's degree in computer science, computer engineering, or the equivalent, having between two to four years of experience in computer operating systems, programs and databases, and/or graphical user interfaces or virtualization.

C. PartitionMagic 3.0 User Guide (Ex. 1005)

The 3.0 User Guide is the user manual for a software product known as PartitionMagic 3.0. Ex. 1005, cover, 1; Ex. 1008 ¶¶ 3–10. PartitionMagic 3.0 was a software tool owned, developed and sold in the United States by PowerQuest Corporation that lets a user repartition a hard

disk with a click of a mouse. Ex. 1005, 3; Ex. 1008 ¶¶ 5–8. Petitioner relies on the Declaration of Eric Ruff, the CEO of PowerQuest from 1993–2000, to establish the public availability of the 3.0 User Guide as prior art. Ex. 1008. According to Mr. Ruff, the 3.0 User Guide is the user manual for the PartitionMagic 3.0 software and was included with every software CD-ROM purchase. Ex. 1008 ¶¶ 8–10. Mr. Ruff states that the 3.0 User Guide was readily publicly available before January 1, 1998.[3] Patent Owner has moved to exclude the 3.0 User Guide and the Ruff Declaration. *See* Paper 49, 6–11. In an order issued concurrently herewith, we deny Patent Owner's motion to exclude the 3.0 User Guide and the Ruff Declaration.

The 3.0 User Guide describes a software tool that employs a GUI for allowing a user to create and manage partitions that are "like file cabinet drawers in which you can separate your operating systems, applications, and data files." Ex. 1005, 3, 27. The 3.0 User Guide also describes running multiple operating systems in separate, secure partitions on the same machine. Ex. 1005, 3. The 3.0 User Guide describes a "Boot Manager" to allow a user to choose which operating system to use to boot a computer, and a user can secure data by physically separating the data from other files through separate data partitions. Ex. 1005, 3–4.

D. Analysis

Petitioner contends claims 1 and 2 of the '400 patent are obvious over the 3.0 User Guide. Pet. 20–41. Petitioner explains how the 3.0 User Guide teaches or suggests the subject matter of the challenged claims, and relies upon the Declaration of Richard Goodin (Ex. 1002) to support its position.

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[3] Application No. 09/409,013, which resulted in the issuance of '400 patent, was filed on September 29, 1999.

Patent Owner contends that the 3.0 User Guide does not render the contested claims obvious. PO Resp. 16–50. Specifically, Patent Owner argues that the 3.0 User Guide fails to teach or suggest certain recited graphical limitations, including e.g., a "cabinet selection button bar," a "secondary storage partitions window," and a "cabinet visible partitions window." PO Resp. 1–5, 22–37. Patent Owner also argues secondary indications of non-obviousness. PO Resp. 38–50. Patent Owner relies on the Declaration of Schumann Rafizadeh (Ex. 2007) to support its position.

Having considered all the evidence and the arguments proffered by Petitioner and Patent Owner, we are persuaded by a preponderance of the evidence that the 3.0 User Guide teaches or suggests all the limitations of the challenged claims. We address the specific issues disputed by Patent Owner with respect to Petitioner's evidence and arguments in further detail below.

1. Independent Claim 1

Independent claim 1 recites a graphic user interface for displaying means for allocating a computer device's resources to multiple operating system environments, partitioned on individual virtual cabinets. Ex. 1001, 8:62–9:18. Petitioner relies on the 3.0 User Guide's depiction of a graphic user interface and its description and explanation of the interface's related functionality to teach the recited limitations. Pet. 22–25. Petitioner provides an annotated version of Figure 1 from the '400 patent to explain the relationship between the limitations of claim 1 and the GUI described in the '400 patent. Pet. 20. Petitioner's annotated Figure 1 of the '400 patent is shown below:
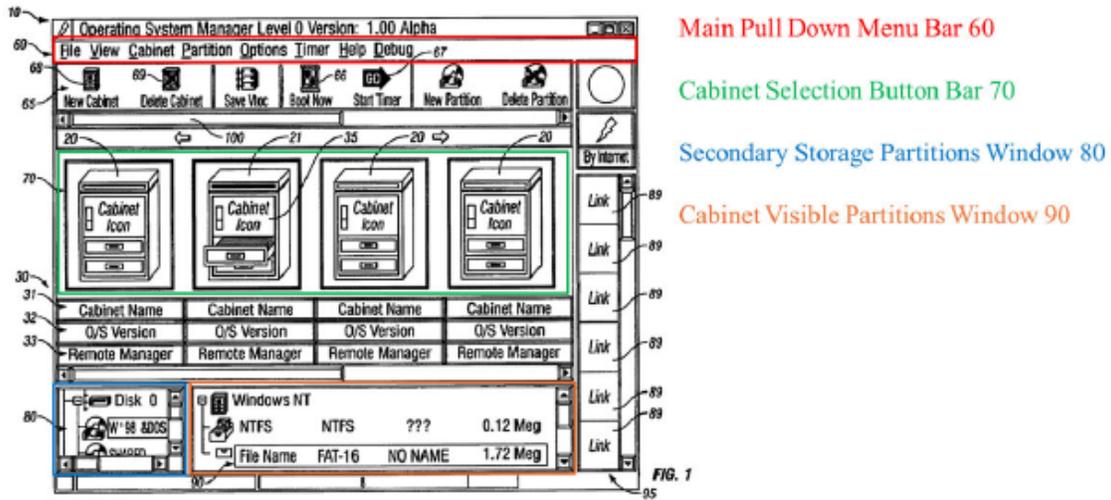
Pet. 20 (Ex. 1001, Fig 1 (annot.)). Annotated Figure 1 represents Petitioner's reading of certain elements of claim 1 onto the figure.

For comparison purposes, Petitioner also provides an annotated version of Figure 3.7 from the 3.0 User Guide to show the relationship between the limitations of claim 1 and the GUI of the 3.0 User Guide. Petitioner's annotated version of Figure 3.7 of the 3.0 User Guide shown below:
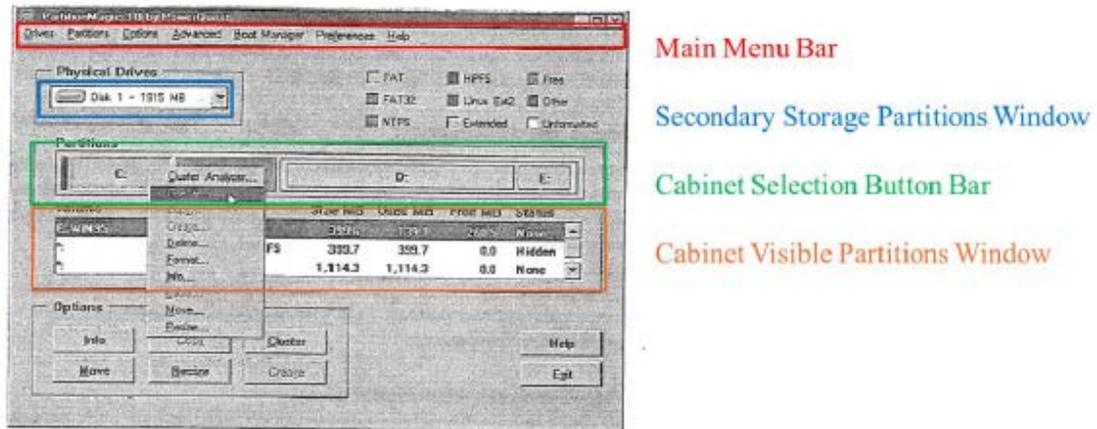

Figure 3.7: Main Window with pop-up option menu displayed

Pet. 39 (Ex. 1005, 30, Fig. 3.7 (annot.)). Annotated Figure 3.7, shown above, represents Petitioner's reading of certain limitations of claim 1 onto the figure.

Patent Owner does not contest Petitioner's evidence that the cited art teaches or suggests certain limitations of claim 1, including, "a main menu bar," "at least one virtual cabinet representing a discrete operating system," and "at least one cabinet visible partition window representing an operating system plus application software, databases and memory configured with said selected virtual cabinet." *See* PO Resp. 20–37.

With respect to the recited "main menu bar," Petitioner relies on the horizontal display of named, selectable commands (highlighted in red) depicted in annotated Figure 3.7 from the 3.0 User Guide shown below. Pet. 25–26 (citing Ex. 1005, 30); Ex. 1002 ¶ 69.
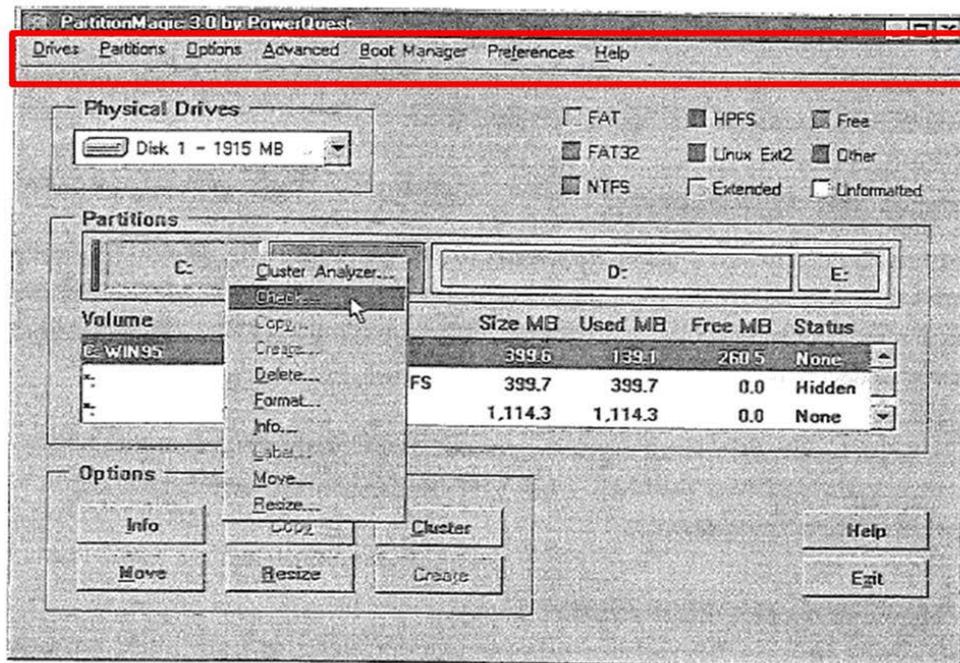

Figure 3.7:   Main Window with pop-up option menu displayed

Annotated Figure 3.7, shown above, depicts a GUI from the 3.0 User Guide.

With respect to the recited "at least one virtual cabinet representing a discrete operating system," Petitioner relies on the 3.0 User Guide's description that "partitions will be like file cabinet drawers in which you can separate your operating systems, applications, and data files," and the further description that its program "lets you reliably run multiple operating systems in separate, secure partitions on the same machine." Pet. 29–30 (citing Ex. 1005, 3; Ex. 1002 at ¶¶ 72-73). Petitioner also relies on the 3.0 <u>User</u> Guide's description that the software allows "you to install and use a second operating system on your computer by separating operating systems into their own secure partitions." Pet. 30 (citing Ex. 1005, 17).

With respect to the recited "at least one cabinet visible partition window representing an operating system plus application software, databases and memory configured with said selected virtual cabinet," Petitioner relies on the 3.0 User Guide's explanation that "partitions will be like file cabinet drawers in which you can separate your operating systems, applications, and data files." Pet. 37 (citing Ex. 1005, 3; Ex. 1002 ¶ 81). Petitioner also relies on the 3.0 User Guide's explanation that "[w]ithin the extended partition, you can create additional subdivisions called logical partitions. You should create primary partitions to install operating systems and logical partitions for all other purposes, such as storing data and applications." *Id.* (citing Ex. 1005, 38; Ex. 1002 ¶ 81).

Notwithstanding Patent Owner's arguments, which we address below, we are persuaded that the 3.0 User Guide teaches or suggests the following limitations as set forth in claim 1: "a main menu bar," "at least one virtual cabinet representing a discrete operating system," and "at least one cabinet visible partition window representing an operating system plus application

software, databases and memory configured with said selected virtual cabinet."

Patent Owner argues that the 3.0 User Guide fails to teach a "graphical user interface for displaying means for allocating a computer device's resources to multiple operating system environments, partitioned on individual virtual cabinets" as recited in claim 1's preamble. PO Resp. 20–22. Patent Owner also argues that the 3.0 User Guide does not teach certain recited graphical elements of claim 1, namely, "a cabinet selection button bar graphically representing at least one virtual cabinet," "a secondary storage partitions window graphically illustrating at least one partition of at least one secondary storage device," and "a cabinet visible partitions window graphically illustrating a cabinet record corresponding to a selected virtual cabinet on said cabinet selection bar." PO Resp. 22–37. We address these arguments below.

a. Preamble

Patent Owner submits that "for the purposes of this analysis, the preamble of claim 1 should be considered limiting." PO Resp. 21. We note that this is the opposite position Patent Owner took in the Lead Case, where Patent Owner argued that the preamble is not limiting. *See* Ex. 1010, 20–21. In the Lead Case, the district court found that the preamble of claim 1 was not limiting. *Id.* at 25. We agree with the district court. As the district court pointed out, "[t]he preamble simply states the intended use of the" graphical user interface—i.e., "for displaying means for allocating a computer device's resources to multiple operating system environments, partitioned on individual virtual cabinets, on said computer device." *Id.* Moreover, the

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district court noted "[t]here is nothing in the prosecution history that establishes that the preamble was used to overcome a prior art rejection" and, "[t]o the contrary, the patentee expressly distinguishes the prior art using limitations found in the body of the claim, not using the preamble." *Id.*

Even if the preamble were limiting, however, we would still not be persuaded by Patent Owner's argument that the graphical user interface taught by Figure 3.7 of the 3.0 User Guide "is limited to partitioning hard disk space, and fails to allocate any other computer resources such as memory" (PO Resp. 22) because those arguments are not commensurate with the scope of the preamble, which does not recite allocating *all* of a computer device's resources or allocating *memory* specifically. On the contrary, the preamble is satisfied if *any* of a computer device's resources are allocated to multiple operating system environments.

The 3.0 User Guide teaches the ability to select a "Create" command to "create new logical partitions to separate your operating systems from your applications and data files" and "to create an additional primary partition to install a second operating system." Ex. 1002 ¶ 58 (citing Ex. 1005, 38–39. An example of the 3.0 User Guide's GUI allocating a computer device's resources is the "Creating a Partition" functionality, that creates "new logical partitions to separate your operating systems from your applications and data files" (Ex. 1005, 41) and the ability "to create an additional primary partition to install a second operating system" (Ex. 1005, 42). Ex. 1002 ¶ 65. Because the 3.0 User Guide's interface elements can be used to create and install multiple partitions, whether to separate the operating system from applications and data files or to install a second

operating system, the GUI is "allocating a computer device's resources to multiple operating system environments."

With respect to the preamble's recited "partitioned on individual virtual cabinets," Petitioner asserts that each of the primary partitions for a different operating system (e.g., the partition for Windows 95 in the top row of the Partition Information window of annotated Figure 3.7, highlighted in orange) is an example of the recited "virtual cabinet." Pet. 24. The '400 patent explains that virtualization exists when physical devices, such as hard disks, are partitioned into a number of logical devices each containing an operating system. Ex. 1002 ¶ 66; Ex. 1001, 1:57–60. Moreover, our construction of a "virtual cabinet" is a "virtual storage device, capable of containing, . . . operating systems, application software . . . databases and memory." The 3.0 User Guide teaches using separate partitions for different operating systems, for example, using one partition for an operating system such as Windows 95 and another partition "to install a second operating system." Ex. 1002 ¶ 66; Ex. 1005, 30, 42. The 3.0 User Guide even uses the phrase "file cabinet drawers," which is similar to the '400 patent's "cabinet" terminology, to describe allocated partitions for different operating systems. Ex. 1005, 3. As a result, the operating system environments created by the 3.0 User Guide's GUI are "partitioned on individual virtual cabinets."

b. Cabinet Selection Button Bar

With respect to the recited limitation "cabinet selection button bar," of the graphic user interface, Petitioner relies on the "partitions portion" or "partitions map" shown in the GUI of annotated Figure 3.7 of the 3.0 User Guide, delineated by the green highlighted rectangle, to teach the recited

limitation. Pet 26–28 (citing Ex. 1005, 27; Ex. 1002 ¶ 70). Petitioner's annotated Figure 3.7 is reproduced below.
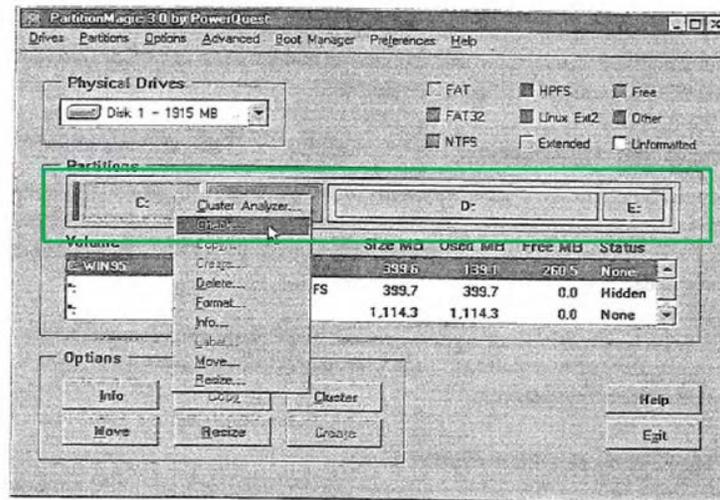

Figure 3.7:   Main Window with pop-up option menu displayed

Annotated Figure 3.7, shown above, depicts a GUI from the 3.0 User Guide. Petitioner notes that the 3.0 User Guide explains, "[t]he partition maps shows the partition sizes to scale." and that "[t]he partition map displays the partitions in different colors, according to the file systems that are on the partitions." Id. at 26 (quoting Ex. 1005, 27; see also Ex. 1002 ¶ 70).

In annotated Figure 3.7 of the 3.0 User Guide, the currently active partition illustrated is the C: drive, represented by the left most box in the Partitions portion of the GUI delineated by the green highlighted rectangle. Petitioner argues that the highlighted top row of the Partition List, beginning with "WIN95," and shown just below the Partitions portion, is the currently active partition, illustrating at least one virtual cabinet with the Windows 95 operating system installed, thereby teaching the recited limitation. Pet. 28–29 (citing Ex. 1005, 27–28; Ex. 1002 at ¶ 71); *see also* Tr. 75:3–15.

Petitioner notes that the 3.0 Guide instructs users that they "should create primary partitions to install operating systems" (Ex. 1005, 38) and

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enables users "to make the currently selected partition the active partition"
(*id.* at 79). Pet. 29. The 3.0 User Guide also teaches that "[a] primary
partition may contain any operating system (OS) as well as data files, such
as applications and user files." Ex. 1005, 126. Petitioner argues that the
illustration of partitions selectable on the cabinet selection button bar of
Figure 3.7 meets the construction of "virtual cabinet" because partitions are
disclosed as being able to store operating systems, application software, and
data. Pet. 29.

Patent Owner argues that a graphical representation of a *partition* is
not a graphical representation of a "virtual cabinet," as recited in claim 1,
and therefore the partition map shown in annotated Figure 3.7 of the 3.0
User Guide, delineated by the green highlighted rectangle, does not teach the
"cabinet selection button bar." PO Resp. 22–30. Patent Owner argues that a
"virtual cabinet" is a graphical depiction of virtualized software and/or data
within a virtual machine. PO Resp. 25. Patent Owner argues that, "when a
virtualized O/S interacts with a virtual storage device, the O/S believes it is
interacting with physical hardware, but actually, the O/S is interacting with a
module that converts virtual addresses from the virtualized O/S to real
addresses." *Id.*

As an initial matter, claim 1 recites a GUI, which does not require an
operating system, but at most, requires the ability to point to an operating
system, as an intended use of the GUI. Moreover, Patent Owner misstates
Petitioner's argument. Petitioner is not arguing that all partitions or any
partitions are virtual cabinets. Rather, Petitioner is arguing that the primary
partitions taught by the 3.0 User Guide, which can be used to install

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operating systems, are virtual cabinets. *See* Pet. 29; Pet. Reply 14–15; Tr. 69.

Our construction of "virtual cabinet" requires only that a virtual cabinet is *capable of containing* operating systems, application software, databases and memory, and that this is accomplished typically by using content pointers. *See also* Ex. 1001, 2:47–52. The 3.0 User Guide teaches that "partitions will be like file cabinet drawers in which you can separate your operating systems, applications, and data files" (Pet. 29–30, quoting Ex. 1005, 3), and that "you should create primary partitions to install operating systems" (Pet. 29, quoting Ex. 1005, 38), allowing users "to make the currently selected partition the active partition" (*id.*, quoting Ex. 1005, 79). The 3.0 User Guide also teaches that "[a] primary partition may contain any operating system (OS) as well as data files, such as applications and user files." Pet. Reply 16 (quoting Ex. 1005, 126). Thus, we are persuaded that the primary partitions illustrated in Figure 3.7 and taught by the 3.0 User Guide are "capable of containing . . . operating systems, application software . . ., databases, and memory," as required by our construction, thereby teaching the recited "cabinet selection button bar graphically representing at least one virtual cabinet."

c. Recited Window Limitations

With respect to the recited limitation "secondary storage partitions window," of the graphic user interface, Petitioner relies on the representation of the Physical Drives portion of the GUI shown on annotated Figures 3.7 and 3.2 of the 3.0 User Guide, delineated by the blue highlighted rectangle, to teach the recited limitation. Pet. 30–33 (citing Ex. 1005, 26, 30; Ex. 1002 ¶¶ 56, 71–75). Petitioner's annotated Figure 3.7 is reproduced below.
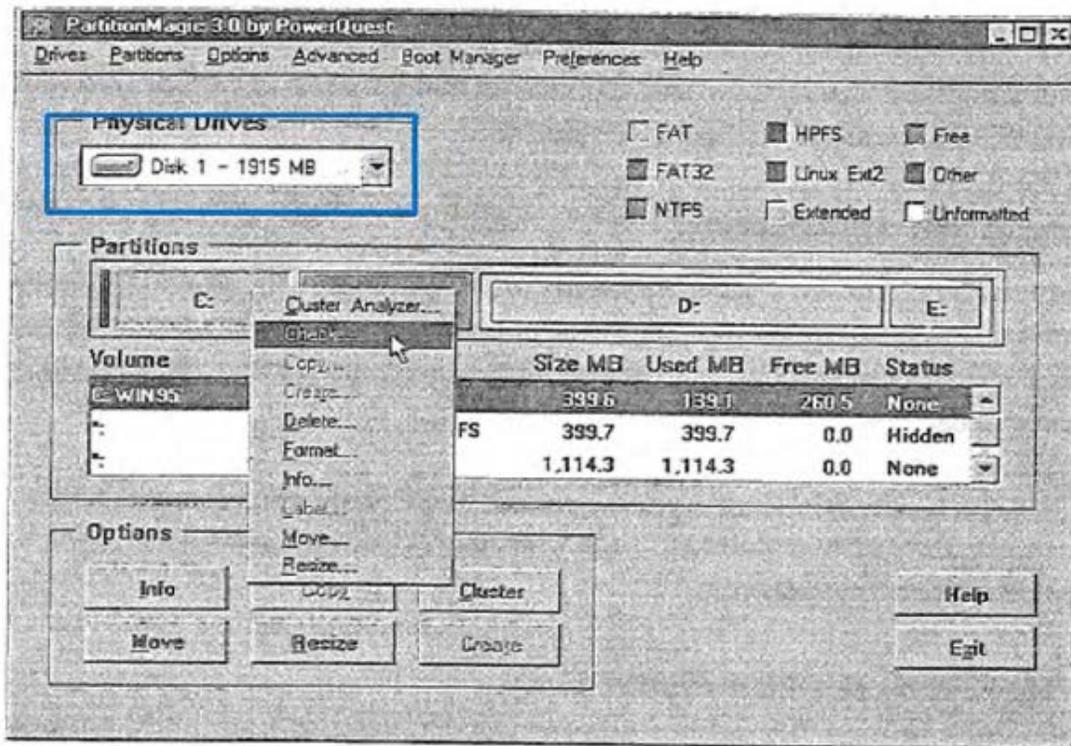
Figure 3.7: Main Window with pop-up option menu displayed

Annotated Figure 3.7, shown above, depicts a GUI from the 3.0 User Guide. Petitioner points to the 3.0 User Guide's explanation that "[i]n the Physical Drives area of the Main window, PartitionMagic displays the currently selected drive and its size in megabytes (MB). You can change to another drive using the drop-down list in the Physical Drives area or using the menu bar." *Id.* at 32 (citing Ex. 1005, 26; Ex. 1002 ¶ 75). Figure 3.2 of the 3.0 User Guide, displaying the drop-down list in the Physical Drives area, is reproduced below.
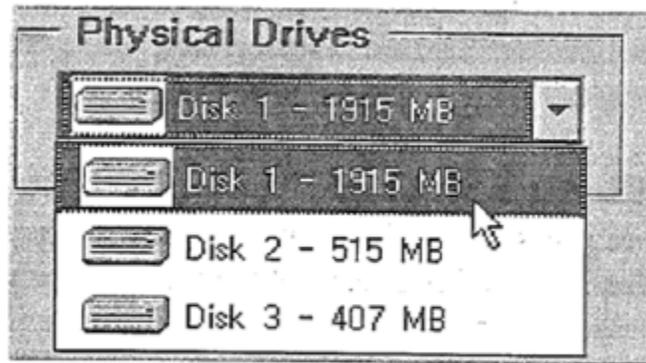
Figure 3.2: Using the mouse to select a physical drive

Figure 3.2, shown above, depicts the selection of physical drives from the 3.0 User Guide.

With respect to the recited "cabinet visible partition window," of the graphic user interface, Petitioner points to the Partition List portion of the GUI shown on annotated Figure 3.7 of the 3.0 User Guide, delineated by the orange highlighted rectangle, to teach the recited limitation. Pet. 33 (citing Ex. 1005, 30; Ex. 1002 ¶¶ 76–78). Petitioner's annotated Figure 3.7 is reproduced below.
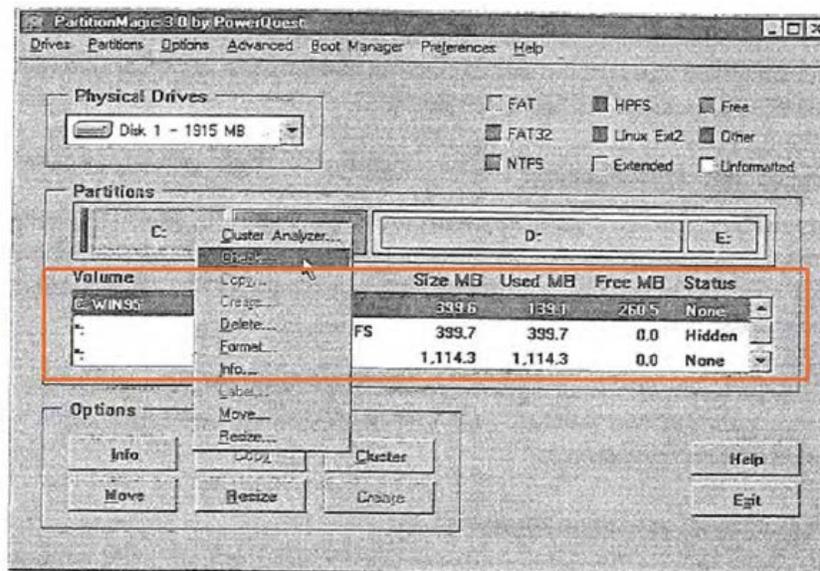

Figure 3.7: Main Window with pop-up option menu displayed

Annotated Figure 3.7, shown above, depicts the GUI from the 3.0 User Guide.

With respect to the recited limitation "said secondary storage partitions window graphically illustrating at least one partition of at least one secondary storage device," Petitioner asserts that when a user selects a secondary storage device, e.g. Drive 2, information about the partitions of the selected secondary storage device displays in a window (delineated in orange), thereby teaching the recited limitation. Pet. 34 (citing Ex. 1005, 26; Ex. 1002 ¶¶ 74–75).

With respect to the recited "said cabinet visible partition window graphically illustrating a cabinet record corresponding to a selected virtual cabinet on said cabinet selection button bar," of the graphic user interface, Petitioner relies on the informational row corresponding to the selected "C:" partition, i.e., the top row in the Partition List portion of the GUI in annotated Figure 3.7, delineated in orange, to teach the recited limitation. Pet. 35–37 (citing Ex. 1005, 27–28; Ex. 1002 ¶ 78). The 3.0 User Guide explains that the "partition list displays the partitions, their drive letters, volume labels, file system types, partition sizes, amounts of used and free space, and their status." *Id.* at 36 (quoting Ex. 1005, 28; *see also* Ex. 1002 ¶ 78). Petitioner asserts that this data for the currently active partition teaches the recited "cabinet record corresponding to a selected virtual cabinet." *Id.* (citing Ex. 1002, ¶¶ 76–78).

Patent Owner argues that the "partitions list," shown in annotated Figure 3.7 (delineated in orange), "fails to depict two distinct windows, each illustrating distinct information as set forth in the claims," and therefore, fails to teach the recited limitations. PO Resp. 31–37. Patent Owner argues

that the border around the partition list defines a window, but that the shaded item within the partition list is only a highlighted element within that window, not a separate window. *Id.* at 32. Patent Owner relies on Figure 1 of the '400 patent and select portions of the Specification to show how two separate and distinct windows are required by claim 1. PO Resp. 33–34. Patent Owner argues that "[a] list of selectable items where the currently selected item is highlighted is not an example of two windows as set forth in the claims, where each window has a distinct border and serves a distinct function." PO Resp. 36.

Patent Owner misstates Petitioner's argument. Petitioner's argument is that the recited "cabinet visible partitions window" is "represented by the entire orange box in [annotated] Figure 3.7, and that the claimed 'secondary storage partitions window' is disclosed by the blue box in combination with the orange box when Disk 2 or 3 is selected." Pet. Reply 21. As Petitioner explains, "the disks displayed when the blue box is selected are 'secondary storage' devices" (Pet. 31–32), and "the partition map and the partition list [orange] will reflect the partition set up of the secondary storage device." Pet. Reply 21 (citing Ex. 1002 ¶¶ 74–75). The portions of Figure 3.7 relied on by Petitioner to teach the "secondary storage partitions window" and "cabinet visible partition window" are two separate windows. The ability to select a secondary storage device (via the drop down menu of the blue box) and view its partitions in a window (*e.g.*, the orange box) of the 3.0 User Guide's GUI that changes in response to the secondary storage device selection, teaches the claimed "secondary storage partitions window."

Similarly, the top row in the partition list portion of the GUI in annotated Figure. 3.7 (within the orange box) contains a graphical

illustration of a cabinet record corresponding to a selected virtual cabinet on the cabinet selection button bar (green), along with its illustration of the partition on which the virtual cabinet resides. This graphical illustration of the cabinet record teaches the recited cabinet visible partition window (orange) recited by claim 1.

For these reasons, we are persuaded that the 3.0 User Guide teaches a GUI for allocating computer resources to multiple operating system environments partitioned on individual virtual cabinets including "a cabinet selection button bar graphically representing at least one virtual cabinet," "a secondary storage partitions window graphically illustrating at least one partition of at least one secondary storage device," and "a cabinet visible partitions window graphically illustrating a cabinet record corresponding to a selected virtual cabinet on said cabinet selection bar."

2. Dependent Claim 2

Claim 2 depends from claim 1 and recites

> A graphic user interface as in claim 1, further comprising:
>
> means for manipulating said selected virtual cabinet record through said cabinet visible partition window.

Ex. 1001, 9:19–22.

Petitioner contends the Partition List portion of the GUI in annotated Figure 3.7 of the 3.0 User Guide (delineated in orange) teaches the recited "cabinet visible partition window." Pet. 39; Ex. 1002 ¶¶ 76–78, 84. The 3.0 User Guide teaches that to change or to select a new partition the user can "click on that partition with [their] mouse in the partition map, the partition list, or the Partitions menu." Pet. 39; Ex. 1005, 27; Ex. 1002 ¶ 84. The 3.0

User Guide also teaches that "[o]nce you have selected a drive and a partition, you can choose an option." Pet. 39–40; Ex. 1005, 29; Ex. 1002 ¶ 84. These selection capabilities are examples of the function of selecting a virtual cabinet for manipulation through the identified cabinet visible partition.

One option described in the 3.0 User Guide is "Format" which "allows you to format a partition with a different file system and volume label." Pet. 40; Ex. 1005, 45; Ex. 1002 ¶ 85. Figure 3.16 of the 3.0 User Guide displays a particular partition selected from the Partition List (cabinet visible partition window) that a user wants to format. Pet. 40; Ex. 1002 ¶ 85.

In its Response, Patent Owner acknowledges the challenge to claim 2, but does not respond to Petitioner's evidence and arguments that the 3.0 User Guide teaches a GUI capable of manipulating a selected virtual cabinet record through a cabinet visible partition window. *See generally* PO Resp. We are persuaded, based on Petitioner's showing summarized above, that the 3.0 User Guide teaches a GUI capable of manipulating a virtual cabinet record through a cabinet visible partition window.

3. Indicia of Nonobviousness

Patent Owner provides a series of observations concerning technologies used by other entities under a section titled "Secondary Indications of Non-Obviousness." PO Resp. 38–50. These observations include a description of online services offered by Amazon Web Services AWS (PO Resp. 41–42), eBay Open Stack (*id.* at 42–43), and Alibaba Cloud (*id.* at 44).

Patent Owner argues a nexus between these services and the claimed invention by alleging, "AWS provides their customers with access to a GUI with a virtual cabinet where the visible partition window represents an operating system plus application software, databases and memory configured with the selected virtual cabinet." PO Resp. 46. Patent Owner also alleges that AWS admits practicing the claimed invention because it advertises that "*[t]he AWS Cloud provides a broad set of infrastructure services, such as computing power, storage options, networking and databases, delivered as a utility,*" that has "*[d]eep features, dedicated connectivity, identity federation and integrated tools allow you to run 'hybrid' applications across on-premises and cloud services.*" PO Resp. 46–47 (quoting https://aws.amazon.com/what-is-aws/). Aside from attorney argument, as Petitioner argues, Patent Owner provides no evidence that these commercial systems utilize the claimed invention. *See* PO Resp. 44–47; Reply 24–26. Patent Owner, for example, does not map any of the limitations recited in claim 1 to any particular feature of these commercial systems. *See* PO Resp. 44–47; Reply 24–26. At most, Patent Owner appears to allege that these systems employ a GUI, but Patent Owner does not even provide a single screenshot of the alleged GUI. *See* PO Resp. 44–47.

Assuming, *arguendo*, that these services use the claimed GUI, Patent Owner has not presented any evidence that the claimed GUI contributes to the commercial success of these systems. The quote from Amazon's website indicates that its cloud service constitutes "a broad set of infrastructure services" and other items. *See id.* The claimed GUI would thus be only a component of a much larger system. However, "[w]hen the

thing that is commercially successful is not coextensive with the patented invention—for example, if the patented invention is only a component of a commercially successful machine or process—the patentee must show prima facie a legally sufficient relationship between that which is patented and that which is sold." *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988); *see also Polaris Industries, Inc. v. Artic Cat, Inc.*, 882 F.3d 1056 (Fed. Cir. 2018) (citing *Demaco,* 851 F.2d at 1392, and stating "[p]ut another way, 'objective evidence of non-obviousness must be commensurate in scope with the claims which the evidence is offered to support.'" (quoting *In re Grasselli*, 713 F.2d 731, 743 (Fed. Cir. 1983)).

In a similar fashion, Patent Owner also provides brief descriptions of alleged commercial success and unresolved need concerning Flash Vos, Inc. ("Flash Vos, Inc. moved the computer industry a quantum leap forward in the late 90's when it invented Systems Virtualization") and GEMSA ("GEMSA creative achievements not only revolutionized the development of virtualization technology for support of multiple operating systems but also helped the development of internet advertising and information accessing from multiple data sources"). PO Resp. 47–48.

These attorney arguments, however, are not supported by any evidence of commercial success. Patent Owner has not provided, for example, any evidence that Flash Vos generated significant sales or was otherwise commercially successful. Moreover, Patent Owner has not persuasively established a nexus between the challenged claims and Flash Vos' alleged commercial success. Patent Owner attempts to link Flash Vos to the claimed invention by stating, "[o]ne of the key features of these

innovations is the method of accessing additional relevant information from the GUI by simply clicking on the information links positioned on the right-hand side of the GUI. See Figure 1 of GEMSA '400." PO Resp. 48. However, the information links positioned on the right-hand side of the GUI shown in Figure 1 of the '400 patent are not the recited limitations of claims 1 and 2 at issue here.

Even assuming Flash Vos or GEMSA products or services embodied the claimed invention and presuming that any commercial success of Flash Vos or GEMSA was due to the claimed subject matter, Patent Owner's argument fails because Patent Owner has put forth no evidence that Flash Vos or GEMSA actually had any commercial success.[4] The record contains no evidence of sales, revenue, profits, or any other indicia of commercial success of Flash Vos or GEMSA products or services.

Patent Owner also alleges copying of the claimed invention by asserting that "[a]t least Amazon, eBay and Alibaba have utilized the claimed inventions of the '400 Patent. PO Resp. 49–50. According to Patent Owner, "the virtualization of the GUI as claimed by the '400 Patent has provided each of these companies with the ability to provide their customers with an incredible amount of data at the tip of their fingertips and amazing speeds." *Id.* at 50. Again, these attorney arguments are unsupported by evidence. Patent Owner provides no evidence, for example,

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[4] *See J.T. Eaton & Co. v. Atl. Paste & Glue Co.,* 106 F.3d 1563, 1571 (Fed.Cir.1997) (presuming, based on a requisite showing of a nexus between the patented invention and commercial success, that commercial success of patentee's products was due to the patented invention).

that any of Amazon, eBay, or Alibaba were even aware of the '400 patent or Flash Vos, much less copied the invention claimed therein.

Patent Owner's unsupported assertions of commercial success, unresolved need, and copying, along with a lack of evidence or analysis establishing a nexus between the claims at issue and any product or service alleged to be practicing the claimed invention, fail to provide substantive evidence of nonobviousness. Petitioner's obviousness showing considered in conjunction with no nexus, or, at most, a weak nexus, establishes by a preponderance of evidence that challenged claims 1 and 2 would have been obvious. *See ClassCo, Inc. v. Apple, Inc.*, 838 F.3d 1214, 1222 (Fed. Cir. 2016) ("[T]he Board should have afforded ClassCo's evidence some weight, taking into account the degree of the connection between the features presented in evidence and the elements recited in the claims. There is no hard-and-fast rule for this calculus, as '[q]uestions of nexus are highly fact-dependent and, as such are not resolvable by appellate-created categorical rules and hierarchies as to the relative weight or significance of proffered evidence.'" (quoting *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1331 (Fed. Cir. 2016)); *id.* at 1220 ("[T]here is no nexus unless the evidence presented is 'reasonably commensurate with the scope of the claims.'" (quoting *Rambus Inc. v. Rea*, 731 F.3d 1248, 1257 (Fed. Cir. 2013)).

III. CONCLUSION

Based on all the evidence of record, we determine that Petitioner has established by a preponderance of the evidence that claims 1 and 2 of the

'400 patent would have been obvious under 35 U.S.C. § 103(a) over the teachings of the 3.0 User Guide.[5]

IV. ORDER

For the reasons given, it is

ORDERED that claims 1 and 2 of the '400 patent are unpatentable; and

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

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[5] Our concurrently issued Decisions on the parties' Motions to Exclude and on Patent Owner's Motion to Strike do not alter the determination here.

PETITIONER:

Benjamin Weed
Jackson Ho
K&L GATES LLP
benjamin.weed.ptab@klgates.com
jackson.ho@klgates.com

Todd Siegel
Andrew Mason
KLARQUIST SPARKMAN, LLP
todd.siegel@klarquist.com
andrew.mason@klarquist.com

Brett Watkins
Lance Yang
QUINN EMANUEL URQUHART & SULLIVAN, LLP
brettwatkins@quinnemanuel.com
lanceyang@quinnemanuel.com

PATENT OWNER:

Lissi Mojica
Mark Cantor
Sangeeta Shah
Brian C. Doughty
Richard J. Cantor
BROOKS KUSHMAN P.C.
lmojica@brookskushman.com
mcantor@brookskushman.com
sshah@brookskushman.com
bdoughty@brookskushman.com
rjcantor@brookskushman.com
GEMSA0102IPR1@brookskushman.com