United States Court of Appeals for the Federal Circuit

2007-1250

MANGOSOFT, INC. and
MANGOSOFT CORPORATION,

Plaintiffs-Appellants,

v.

ORACLE CORPORATION,

Defendant-Appellee.

Donald R. Dunner, Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. of Washington, DC, argued for plaintiffs-appellants. With him on the brief were Don O. Burley; and Erik R. Puknys, of Palo Alto, California. Of counsel on the brief were Paul J. Hayes and Robert R. Gilman, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo P.C., of Boston, Massachusetts.

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Appealed from: United States District Court for the District of New Hampshire

Chief Judge Steven J. McAuliffe

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MANGOSOFT, INC.
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Plaintiffs-Appellants,

v.

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Defendant-Appellee.

Appeal from the United States District Court for the District of New Hampshire in case no. 02-CV-545, Chief Judge Steven J. McAuliffe.

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DECIDED: May 14, 2008

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Before MICHEL, <u>Chief Judge</u>, LINN and PROST, <u>Circuit Judges</u>.

LINN, <u>Circuit Judge</u>.

Mangosoft, Inc. and Mangosoft Corporation (collectively, "Mangosoft") appeal from a final judgment of the district court following a summary judgment order holding that Oracle Corporation ("Oracle") did not infringe Mangosoft's U.S. Patent No. 6,148,377 ("the '377 patent"). <u>Mangosoft, Inc. v. Oracle Corp.</u>, No. 02-CV-545 (D.N.H. Mar. 14, 2006) ("<u>Summary Judgment Opinion</u>"). Because Mangosoft's arguments on appeal relate solely to claim construction, and because we find no error in the district court's construction of the sole claim term raised on appeal, we affirm.

I. BACKGROUND

Mangosoft owns the '377 patent, which relates to "computer networking systems and methods that provide shared memory systems and services." '377 patent col.1 ll.4-6. Specifically, the '377 patent discloses "systems that can create and manage a virtual memory space that can be shared by each computer on a network and can span the storage space of each memory device connected to the network." Id. col.2 ll.21-24. In contrast to traditional client-server networks, where servers with significant memory capacity served as "central repositor[ies] of network data," id. col.1 ll.23-28, the '377 patent describes a system that pools together the storage capacity of individual computers (or nodes) on the network to form a "virtual memory space," see id. col.2 ll.21-28. Thus, the disclosed storage system emphasizes decentralized storage, which leverages the storage capacity of individual client computers by allowing all of the nodes of the network to contribute portions of their local persistent (e.g., hard disk) storage and volatile (e.g., RAM) memory to a virtual pool of storage and memory accessible by the entire network.

In 2002, Mangosoft filed suit against Oracle and accused Oracle's Real Applications Clusters ("RAC") software, sold in conjunction with its 9i and 10g database software, of infringing a total of 38 claims of both the '377 patent and a related patent. Oracle counterclaimed for a declaratory judgment of invalidity, unenforceability, and non-infringement. In 2004, the district court construed several disputed claim terms after holding a Markman hearing. With respect to the term "local," it held that

> the word "local" when used to modify a computer device means a computer device (e.g., a hard drive) that is directly attached to a single computer's processor by, for example, the computer's bus.

Mangosoft, Inc. v. Oracle Corp., No. 02-CV-545, slip op. at 20 (D.N.H. Sept. 21, 2004) ("Claim Construction Opinion") (noting additionally that a hard disk "that is 'local' to one computer may also be shared with, or accessed by, other computers on the network"). The district court distinguished "local" memory devices from "shared," "networked," or "remote" memory devices, and rejected Mangosoft's request to construe "local" to "simply requir[e] a computer memory device that is somehow 'linked' to a computer (whether directly or indirectly)." Id. at 18-20 (noting that such a construction would render the term "local" superfluous or redundant in light of claim 1's requirement that local memory devices be "coupled" to a computer).

Following this order, Mangosoft amended its list of asserted claims to allege infringement only of claims 1, 5, and 9 of the '377 patent. The parties then filed cross-motions for summary judgment on the issues of infringement, invalidity, and unenforceability of the '377 patent. Summary Judgment Opinion at 1-2. The district court concluded that, as a matter of law, Oracle did not infringe any of the asserted claims; the court left most of the invalidity and inequitable conduct issues unresolved. Id. at 42. In so holding, the district court agreed with Oracle that "the memory space shared in RAC clusters does not span local persistent memory devices." Id. at 8, 14-15. Approximately one year later, the district court dismissed Oracle's counterclaim without prejudice, and entered judgment of non-infringement in favor of Oracle. Mangosoft, Inc. v. Oracle Corp., No. 02-CV-545 (D.N.H. Mar. 28, 2007). Mangosoft timely appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

II. DISCUSSION

This appeal presents a question of claim construction involving a single claim term. The parties' arguments turn on the singular issue of what it means for a storage device, such as a hard disk, to be "local" to a particular computer, or node, in a computer network. Mangosoft contends that in construing the claim term "local," the district court improperly imported what Mangosoft characterizes as the "direct" and "unique" connection limitations. See Claim Construction Opinion at 20 (requiring that local memory devices be "directly attached to a single computer's processor" (emphases added)). It argues that the district court derived these limitations solely from a technical dictionary definition proffered by Oracle, although this dictionary was not cited by the district court. See id. at 18-20. Mangosoft contends that a "local" memory device should be construed as "a memory device that . . . can be contributed to the shared addressable memory space by a particular node." Oracle responds that the claim language, specification, prosecution history, and reliable extrinsic evidence support the district court's construction. We agree with Oracle.

Mangosoft relies heavily on the fact that the district court's opinion preceded Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and principally argues that the result was improperly influenced by references made by the parties to a technical dictionary. Mangosoft's position is misplaced for several reasons and places undue weight on what it contends was the district court's reliance on the Texas Digital methodology. See generally Phillips, 415 F.3d at 1319-22 (discussing Tex. Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193 (Fed. Cir. 2002)). First, while there is no question that dictionaries were considered, even Phillips recognized that reference to such

sources is not prohibited so long as the ultimate construction given to the claims in question is grounded in the intrinsic evidence and not based upon definitions considered in the abstract. Phillips, 415 F.3d at 1318 (noting that "dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology" and thus "have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention"); see also Acumed LLC v. Stryker Corp., 483 F.3d 800, 809 n.2 (Fed. Cir. 2007) ("Although in Phillips we rejected an approach in which a broad dictionary definition is adopted and then whittled down only if contradicted by the specification, we did not prohibit the use of dictionaries in claim construction, nor did we define at what point in the claim construction analysis they may be consulted." (internal citation omitted)); Old Town Canoe Co. v. Confluence Holdings Corp., 448 F.3d 1309, 1316 (Fed. Cir. 2006) ("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."). Second, we review judgments, not opinions, and need not focus on the methodology used by the district court. Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1346 (Fed. Cir. 2001) (noting "the familiar principle that this court does not review supporting arguments, but only the decisions reached by the trial court" (citing Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1540 (Fed. Cir. 1983))); see also Acumed, 483 F.3d at 809 n.2 ("Our de novo review means that we need not decide whether the logic or subsidiary definitions used by the district court to reach the correct

construction were sound. . . . We review only the district court's finished product, not its process."). Finally, even though the district court did not have the benefit of Phillips at the time of its decision, the court's claim construction is fully consistent with and supported by the intrinsic record—as well as the dictionary—and thus fully comports with our precedent. We begin with the language of the claims.

The district court's construction of the term "local" is consistent with the language of claim 1. The same cannot be said for Mangosoft's position. Mangosoft's construction would read "local" to mean something beyond the breadth of anything in the claims or the specification by giving that term attributes of control. The problem is that nothing in the intrinsic record describes or supports such an expansive meaning. Moreover, the broader construction proffered by Mangosoft—"a memory device that . . . can be contributed to the shared addressable memory space by a particular node"— would render the claim term "local" superfluous. This was recognized by the district court. See Claim Construction Opinion at 19-20. Claim 1 requires that each local persistent memory device be "coupled to" a computer comprising a node on the network and that the "shared addressable memory space" be mapped "across said plurality of local persistent memory devices" through these computer nodes. This language— independent of the word "local"—requires a connection of some sort between a computer and a hard disk. Thus, Mangosoft's proposed construction ascribes no meaning to the term "local" not already implicit in the rest of the claim. See Merck & Co. v. Teva Pharm. USA, Inc., 395 F.3d 1364, 1372 (Fed. Cir. 2005) ("A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so."). This defect is particularly severe because Mangosoft added the word "local" to

claim 1 during prosecution to distinguish prior art as discussed infra. In contrast, the district court's construction accords "local" its ordinary meaning by distinguishing "local persistent memory devices" from those that are "shared," "networked," or "remote." Claim Construction Opinion at 18. Construing "local" to mean "directly attached to a single computer's processor" also comports with claim 1's recitation of "a plurality of computers, each of said plurality of computers . . . including . . . a local persistent memory device coupled to said computer." '377 patent claim 1 (emphases added). Turning next to the specification, we find additional support for the district court's construction.

Specifically, the summary of the invention notes that "[i]n a system that distributes the storage across the memory devices of the network, the persistent memory device will be understood to include a plurality of local persistent memory devices that each couple to a respective one of the plural computers." '377 patent col.3 ll.10-14 (emphases added). Mangosoft relies on the prior paragraph's introductory language ("[i]n one aspect, the invention can be understood to include," id. col.2 l.64) to argue that the language regarding local persistent memory devices relates solely to one embodiment. However, even if we assume that this language properly addresses only an "aspect" of the invention—namely, "computer systems having a shared addressable memory space," id. col.2 ll.64-66—this is precisely the aspect of the invention at issue in claim 1. See id. claim 1 (reciting "[a] computer system have a shared addressable memory space"); see also Verizon Servs. Corp. v. Vonage Holdings Corp., 503 F.3d 1295, 1308 n.8 (Fed. Cir. 2007) (rejecting Verizon's argument that language in the specification referring to the "present invention" was "not significant . . . because the

specification merely refers to 'one aspect' of 'the present invention,'" because "that 'aspect' is . . . the very claim term that is at issue here").

More generally, the specification discloses that an "object of the invention is to provide computer network systems that . . . dynamically exploit[] <u>distributed</u> resources," '377 patent col.2 ll.3-6 (emphasis added), in contrast to centralized storage, and characterizes local persistent memory devices as being unique to individual nodes on the network, <u>e.g.</u>, <u>id.</u> col.3 l.44 ("local persistent memory device of a first computer"); <u>id.</u> col.3 ll.45-46 ("local persistent memory device of a second computer"); <u>id.</u> col.7 l.21 ("the local memories of each of the nodes"). The specification's figures and descriptions consistently represent "local" persistent memory devices as being directly attached to individual computers. In so doing, the specification specifically contrasts local memory devices with "network memory devices," which are remote, networked memory devices providing centralized shared storage for multiple computers. For example, the embodiment illustrated in Figure 2, reproduced below, includes "a network memory device 26," but the specification defines only the disks 36a, 36b, and 36c of each individual node on the network as being "local." <u>Id.</u> col.7 ll.1-8.
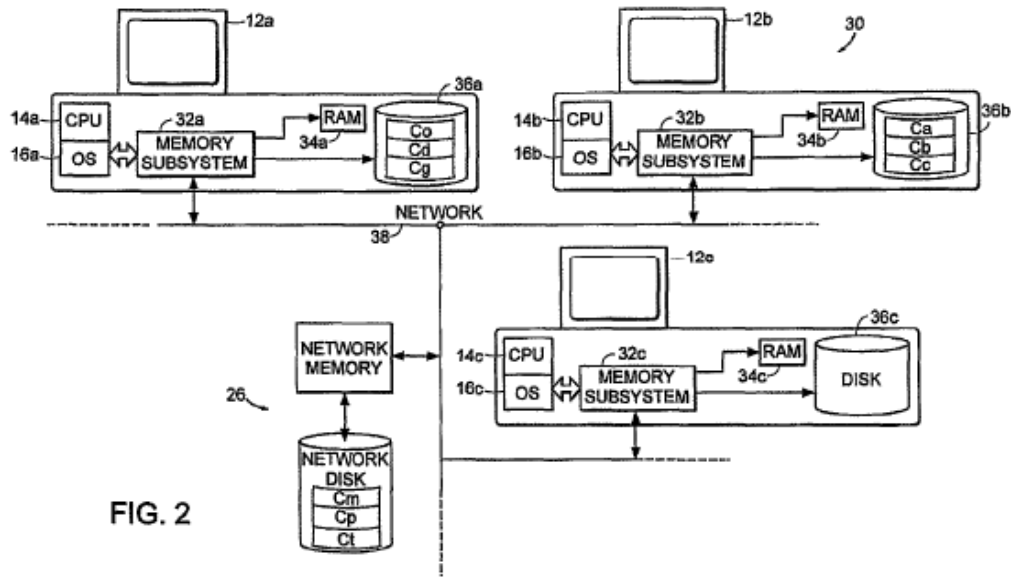
FIG. 2

Mangosoft nonetheless argues that claim 1 may encompass such network memory devices based on the following language in the specification: "The disk can be any persistent memory including any disk, RAID, tape or other device that provides persistent data storage." Id. col.3 ll.38-40. Mangosoft characterizes RAID as a type of network memory device "in which numerous drives are shared by a 'cluster' of computers." Taken in context, however, this quote relates not to "local" persistent memory devices, nor even to the persistent memory devices across which the shared addressable memory space is spanned, but rather to an optional "cache controller." Id. col.3 ll.34-40. In sum, we find the specification and claim language entirely consistent with and fully supportive of the district court's construction.

We find further support for the district court's construction in the prosecution history. As originally filed, the application leading to the '377 patent included a broader claim 1, which recited, in relevant part, "a persistent memory device, coupled to said data network and having persistent storage for data signals." J.A. 1295. The original application also included a dependent claim—filed as claim 2—which recited "a plurality

of local persistent memory devices each coupled to a respective one of said plural computers." Id. During prosecution, Mangosoft amended claim 1; cancelled several claims, including claim 2; and represented to the examiner that it had "[i]n general . . . amended claim 1 to include the subject matter of claims 2, 3, 4, 8, and 9. Amended claim 1 recites 'a local persistent memory device' . . . associated with each of the computers coupled to the network." J.A. 1391. In describing the amendment to the examiner, Mangosoft emphasized the addition of the term "local" and argued that "none of the relied-upon references teaches or suggests local . . . persistent memory devices (e.g., hard disks associated with each networked computer), having portions of a shared addressable memory space mapped thereon." Id. The examiner responded to this amendment and accompanying arguments by allowing the claims.

In addressing that history, Mangosoft argues that in amending claim 1, which does not recite all of the language of cancelled claim 2, it did not incorporate the limitation that local devices "each [be] coupled to a respective one of said plural computers." Mangosoft characterizes cancelled claim 2 as requiring "unique" connections between each local persistent memory device and computer, such that no computer could have more than one such device. Mangosoft contends that it could not have incorporated this limitation into claim 1 because its communications with the examiner contemplated computers having multiple local hard disks. Contrary to Mangosoft's arguments, neither the language of cancelled claim 2 nor the district court's requirement that local disks be directly attached to a single computer precludes a single computer from having multiple local disks. Moreover, having incorporated the term "local" and having represented to the examiner that it had "[i]n general . . . amended

claim 1 to include the subject matter of claim[] 2," Mangosoft cannot now argue that "local" should be interpreted inconsistently with both cancelled claim 2 and the definition found in the specification, which describes "a plurality of local persistent memory devices that each couple to a respective one of the plural computers." '377 patent col.3 ll.12-14. To do so would effectively read the "local" limitation out of the claim or ignore the subject matter incorporated from cancelled dependent claim 2 of the original application. See, e.g., Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1323 (Fed. Cir. 2003) (noting that "[t]he doctrine of prosecution disclaimer . . . preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution").

Nor do we find persuasive Mangosoft's argument that the amendment was made not to emphasize "local" but rather to emphasize that the claimed shared addressable memory space consisted of both volatile and persistent memory. This interpretation of the prosecution history flies in the face of the arguments Mangosoft presented to the examiner and which it quotes in its brief on appeal: "[N]one of the relied-upon references teaches or suggests local volatile memory devices . . . or persistent memory devices . . . having portions of a shared addressable memory space mapped thereon." J.A. 1391 (emphases added).

Having found support for the district court's claim construction in the claim language, the specification, and the prosecution history of the '377 patent, we note that this construction is also consistent with the technical dictionary definition proffered by Oracle. "Local device" is there defined as "[p]eripheral equipment that is linked directly to a computer or other supporting equipment without an intervening communications

channel." <u>McGraw-Hill Dictionary of Scientific and Technical Terms</u> 1159-60 (5th ed. 1994). In response to Oracle's assertion that this definition represents the accepted meaning of this term in the relevant art, <u>see</u> <u>Phillips</u>, 415 F.3d at 1313, Mangosoft neither provides a persuasive reason to disregard it, nor contests that it accurately reflects the general meaning of this term to those of skill in the art. It argues only that this definition is not limited to memory devices, but rather encompasses numerous kinds of computer devices. We find this argument to be inconsequential, particularly because Mangosoft does not dispute that this definition encompasses the persistent storage devices at issue in this case. Accordingly, when considered in the context of and not divorced from the intrinsic evidence, there is nothing improper about referencing this definition in correctly construing the claim. <u>See</u> <u>L.B. Plastics, Inc. v. Amerimax Home Prods., Inc.</u>, 499 F.3d 1303, 1308 (Fed. Cir. 2007) (noting that the district court properly referenced dictionaries—including a later version of the dictionary cited by Oracle—in construing various disputed claim terms).

Finally, we have considered the parties' remaining arguments concerning additional extrinsic evidence and find them to be unpersuasive.

III. CONCLUSION

Because the district court correctly construed the "local" claim term, we affirm the district court's grant of Oracle's motion for summary judgment of non-infringement.

<div align="center"><u>AFFIRMED</u>.</div>