United States District Court
For the Northern District of California

IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

ALACRITECH, INC.,

Plaintiff,

v.

MICROSOFT CORPORATION,

Defendant.
/

No. C 04-03284 JSW

ORDER GRANTING PRELIMINARY INJUNCTION

Now before the Court is the motion of plaintiff Alacritech, Inc. ("Alacritech") for preliminary injunction against defendant Microsoft Corporation ("Microsoft"). Having carefully considered the parties' arguments, the relevant legal authority, and having had the benefit of oral argument, the Court hereby GRANTS Alacritech's motion for preliminary injunction.

BACKGROUND[1]

Alacritech seeks to prevent Mircrosoft from infringing Alacritech's patent. U.S. Patent No. 6,697,868 (the '868 patent). The '868 patent relates to network interface software. Claim 1 of the '868 patent claims software executable on a processor to establish a Transmission Control Protocol ("TCP") connection and then offload the TCP connection from the processor to an intelligent TCP offload mechanism. ('868 patent at col. 13:24-31). Alacritech contends that Microsoft's TCP Chimney or Longhorn software infringes Claim 1 of the '868 patent and is

[1] When faced with a motion for a preliminary injunction, the Court "is not required to make any binding findings of fact; it need only find probabilities that the necessary facts can be proved." *Sierra On-Line, Inc. v. Phoenix Software, Inc.*, 739 F.2d 1415, 1423 (9th Cir. 1984). Accordingly, the Court emphasizes that the facts recited in this order are not to be considered final and binding findings of fact on the rest of the proceedings.

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moving for a preliminary injunction to enjoining Microsoft from making, using, offering for sale, selling, importing or inducing others to use Microsoft's TCP Chimney or Longhorn software.

ANALYSIS

I. Legal Standard

Alacritech must demonstrate its right to a preliminary injunction in light of the following four factors: "(1) a reasonable likelihood of success on the merits; (2) irreparable harm if the injunction were not granted; (3) the balance of the hardships and (4) the impact of the injunction on the public interest." *Polymer Technologies, Inc. v. Bridwell*, 103 F.3d 970, 973 (Fed. Cir. 1996). If Alacritech makes a clear showing of the first factor, namely that Claim 1 of its '868 patent is valid and that Microsoft is infringing, then Alacritech is entitled to a presumption of irreparable harm. *Id.*

A. Likelihood of Success: Validity and Infringement

Generally there is a presumption that patents are valid. *Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d 1555, 1574 (Fed. Cir. 1992). However, while "[t]he presumption of validity of a patent is a procedural device that places the burden of going forward and the ultimate burden of persuasion at trial on one attacking the validity of a patent[,] .... at the preliminary injunction stage, because of the extraordinary nature of the relief, the *patentee* carries the burden of showing likelihood of success on the merits with respect to the patent's validity, enforceability, and infringement." *Nutrition 21 v. U.S.*, 930 F.2d 867, 869 (Fed. Cir. 1991) (emphasis in original).

"An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing." *Personalized Media Communications, LLC v. International Trade Com'n*, 161 F.3d 696, 702 (Fed. Cir. 1998) (*citing Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed.Cir.1995)).

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i. Construction of Claim 1

In its motion for preliminary injunction, Alacritech is only asserting Claim 1 of the '868 patent, which states the following: "A set of instructions executable on a processor, the set of instructions being for performing steps comprising: establishing a TCP connection, the TCP connection being at least in part identified by a TCP source port, TCP destination port, IP source address, and IP destination address; and offloading the TCP connection from the processor to an intelligent TCP offload mechanism." ('868 Patent, Claim 1). Microsoft contends that the Court should construe Claim 1 pursuant to 35 U.S.C. § 112 ¶ 6, as a means-plus-function claim. The Court rejects Microsoft's contention.

Under 35 U.S.C. § 112 ¶ 6, a patentee may express a claim limitation functionally, without reciting a structure for performing the claimed function. *See Envirco Corp. v. Clestra Cleanroom, Inc.*, 209 F.3d 1360, 1364 (Fed. Cir. 2000). Such a limitation is construed "to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. § 112 ¶ 6. When a claim term does not use the term "means," there is a rebuttable presumption that § 112 ¶ 6 does not apply. *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004). To overcome the presumption, a party must demonstrate that the "the claim term fails to recite sufficiently definite structure or recites function without reciting sufficient structure for performing that function." *Id*. (internal quotes and citations omitted). The presumption that § 112 ¶ 6 does not apply "is a strong one that is not readily overcome." *Id*.

In determining whether a claim term recites sufficient structure to avoid application of § 112 ¶ 6, the Federal Circuit does not require the claim term to denote a specific structure. *Lighting World*, 382 F.3d at 1359. Rather, "it is sufficient if the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure, even if the term covers a broad class of structures and even if the term identifies structures by their function." *Id*. at 1359-60. The *Lighting World* court further explained that whether the term at issue does not bring to mind a particular structure is not dispositive. "What is important is whether the term is one that is understood to describe structure, as opposed to a term that is simply a nonce word or

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a verbal construct that is not recognized as the name of structure and is simply a substitute for the term 'means for.'" *Id*. at 1360.

In *Personalized Media Communications*, the court held that term "detector," although broad, was still structural for purposes of § 112 ¶ 6 because it was "not a generic term such as 'means,' 'element,' or 'device.'" *Personalized Media Communications*, 161 F.3d at 704. Similarly, in *Lighting World*, the court rejected the contention that the term "connector assembly" insufficiently identified a structure because dictionary definitions disclosed that the term "connector" had a reasonably well-understood meaning as a name for structure, even though structure was defined in terms of the function it performed. *Lighting World*, 382 F.3d at 1360-61. The fact that more than one structure may be described by the term "connector," did not make the term "connector assembly" any less a name for structure. *Id*. at 1361.

In *Reiffin v. Microsoft Corp.*, 64 U.S.P.Q.2d 1107 (N.D. Cal. 2002), where the claim used the term "means," and was thus subject to a presumption that § 112 ¶ 6 *did* apply, the court found that "a thread of instructions executable by the microcomputer" sufficiently described the associated structure. The court reasoned that "[w]hen discussing software programs, ... disclosing the software structure and the function that the software is expected to execute may be enough to satisfy the disclosure requirements of § 112." *Id*. at 1119-20.

Claim 1 does not contain the term "means," and is subject to a strong presumption that § 112 ¶ 6 does not apply. Microsoft's reliance on *Altiris, Inc. v. Symantec Corp*. for the proposition that "a set of instructions" must be construed as a means-plus-function claim limitation is misplaced. 318 F.3d 1363, 1376 (Fed. Cir. 2003). In *Altiris*, the court construed the claim language at issue under the presumption that § 112 ¶ 6 *applied* because the claim used the term "means." Because *Altiris* construed the claim language under a different standard, it does not support Microsoft's position that the term "instructions" is so broad that it fails to sufficiently disclose structure. The Court concludes that "a set of instructions executable on a processor" sufficiently discloses the structure as software, and thus the presumption that § 112 ¶ 6 applies has not been rebutted. The Court will therefore construe the disputed terms of Claim 1 with the understanding that § 112 ¶ 6 does not apply.

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The parties agree that TCP should be construed as "Transmission Control Protocol. A host-to-host protocol for reliable communication in internetwork environments." The only phrases in Claim 1 which the parties seek the Court to construe are: (1) "TCP connection," (2) "establishing a TCP connection," (3) "offloading the TCP connection from the processor," and (4) "an intelligent TCP offload mechanism."[2]

a. TCP Connection

Alacritech proposes that "TCP connection" be construed as "a combination of information that identifies a process on a local host and a process on a remote host that wish to communicate using TCP, describes the status of TCP communication between those processes, and can be employed to send data between those processes using TCP." Microsoft proposes that the phase be construed as "a logical communication path identified by a pair of sockets pursuant to the Transmission Control Protocol." The Court concludes that Microsoft's construction conflicts with the intrinsic evidence and defines "TCP connection" in a way that it could not be offloaded. (Almeroth Declaration, ¶ 4.)

Alacritech relies on RFC 793 to support its construction, which defines "connections" as "[t]he reliability and flow control mechanisms ... require that TCPs initialize and maintain certain status information for each data stream. The combination of this information, including sockets, sequence numbers, and window sizes, is called a connection. Each connection is uniquely specified by a pair of sockets identifying its two sides." Alacritech also relies on the specifications of the '868 patent, including portions which discuss the communication control block ("CCB"). (*See* '868 Patent at 6:7-15, 10:23-24.) The Court finds that other portions of the specifications further support Alacritech's proposed construction and thus adopts its construction. (*See* '868 Patent at 3:47-48, 5:60-61.)

[2] At the hearing, Alacritech withdrew its request to have the Court construe "A set of instructions executable on a processor, the set of instructions being for performing the steps comprising" and "the TCP connection being at least in part identified by a TCP source port, TCP destination port, IP source address, and IP destination address." Microsoft agrees that these phrases do not need further construction by the Court. Therefore, the Court will not construe these phrases within Claim 1.

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b. Establishing a TCP Connection

Microsoft proposes that "establishing a TCP connection" be construed as "establishing a logical communication path identified by a pair of sockets pursuant to the Transmission Control Protocol." Because Microsoft's proposed construction is premised on its proposed definition of "TCP connection," the Court rejects its proposed construction of "establishing a TCP connection" for the same reasons.

At the hearing, Alacritech proposed that the phrase be construed as "creating a TCP connection, through initial communications between the local host and the remote host, to put the TCP connection in the ESTABLISHED state, as defined by RFC 793." Alacritech's proposed construction is not supported by the evidence it cites. Alacritech points to page 5 of RFC 793, attached as Exhibit P to the Almeroth Declaration, which states: "When two processes wish to communicate, their TCP's must first establish a connection (initialize the status information on each side)." Moreover, because the Court has already construed "TCP connection," it finds that the addition of the word "establishing" does not require further construction.

c. Offloading the TCP Connection from the Processor

Microsoft proposes that "offloading the TCP connection from the processor" be construed to mean "allocating processing for the TCP connection from the processor." This proposed construction conflicts with the intrinsic evidence because it would limit the patent to offloading processing, and not necessarily include offloading the TCP connection itself. (*See* '868 patent at col. 5:56-6:2, 8:66-67, 9:51-55.) The Court finds that Alacritech's proposed construction of "offloading the TCP connection from the processor" to mean "transferring the established TCP connection and associated processing from the processor" to be supported by the intrinsic evidence and thus adopts its construction. (*Id.*)

d. An Intelligent TCP Offload Mechanism

The Court finds that Alacritech's proposed construction of "an intelligent TCP offload mechanism" to mean "a network interface that is capable of accepting the established TCP connection and performing processing associated with that connection" to be supported by the

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intrinsic evidence and that Microsoft's proposed construction which includes the phrase "without any control by the host" is contradicted by the intrinsic evidence. (*See* '868 patent at col. 2:23-27, 3:2-5, 3:38-46, 5:32-44, 5:56-60, 6:1-2.) The Court therefore construes of "an intelligent TCP offload mechanism" to mean "a network interface that is capable of accepting the established TCP connection and performing processing associated with that connection."

ii. Validity

Microsoft argues that the '868 patent is invalid based on (1) anticipation by prior art, (2) obviousness, (3) inclusion of subject matter ineligible to be patented, and (4) indefiniteness.

a. Anticipation by Prior Art

"Anticipation under [35 U.S.C. § 102] requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in that claim." *Sandt Tech., Ltd. v. Resco Metal & Plastics Corp.*, 264 F.3d 1344, 1350 (Fed.Cir.2001) (citations omitted). In addition, because Alacritech's patent survived a full patent examination process, including all potential invalidity challenges, the '868 patent is entitled to a presumption of validity pursuant to 35 U.S.C. § 282, and Microsoft will have to prove at trial its invalidity contentions by clear and convincing evidence. *See, e.g., Abbott Lab. v. Geneva Pharm., Inc.*, 182 F.3d 1315 (Fed Cir. 1999). However, to defeat a preliminary injunction, Microsoft's merely needs to demonstrate a substantial question concerning either infringement or validity. *Amazon.com, Inc. v. Barnsandnoble.com, Inc.*, 239 F.3d 1343, 1350-51 (Fed. Cir. 2001).

Microsoft contends the following is prior art demonstrating Alacritech's patent was anticipated or obvious: 1) The Protocol Engines System, 2) U.S. Patent No. 5,619,650 to Bach, et al. (the "Bach patent"), (3) the Maclean and Barvick paper, (4) the Koufopavlou paper, and (5) the Beach paper. In its reply brief, supported by the reply declaration of Dr. Kevin Almeroth, Alacritech demonstrated that none of these references disclose transferring a TCP connection, an element of Claim 1 of the '868 patent. The Court gave Microsoft an opportunity to respond and to direct the Court to specific evidence in the record demonstrating that the alleged prior art disclosed establishing and then transferring a TCP connection. In reviewing the evidence cited by Microsoft, the Court concludes that Microsoft has not shown that the

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references it cites to disclose all the elements of Claim 1. (*See* Chesson Decl., Ex. D at 5A, 37; Ex. E at 86; Ex. G at 527; Ex. M at col. 8:8-16, 11:4-16, Ex. O at 1730, Ex.Q at 234, 237-38, 241.) Therefore, the Court concludes that Microsoft has not demonstrated a substantial question with respect to validity of the '868 patent on the basis of anticipation.

b. Obviousness

A patent is invalid for obviousness if the differences between it 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." 35 U.S.C. § 103(a); *see Advanced Display Systems, Inc. v. Kent State Univ.*, 212 F.3d 1272, 1284 (Fed Cir. 2000). "Obviousness is ultimately a question of law that rests on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective considerations of nonobviousness.... Objective considerations such as failure by others to solve the problem and copying, ... may often be the most probative and cogent evidence of nonobviousness." *Advanced Display Systems*, 212 F.3d at 1284-1285 (internal quotes and citations omitted) (finding patent nonobvious based on company's repeated failures to design the claimed invention). In fact, failed attempts by others to develop the claimed invention can be determinative on the issue of obviousness. *Id*. at 1285 (citing string of cases finding nonobviousness based on competitors' failures to develop patented invention). Appreciation by contemporaries skilled in the field of the invention is also a useful indicator of obviousness. *Vulcan Engineering Co., Inc. v. Fata Aluminum, Inc.*, 278 F.3d 1366, 1373 (Fed Cir. 2002).

Alacritech presented evidence of others failing to develop its claimed invention, as well as evidence of appreciation by contemporaries. Microsoft expressed interest in Alacritech's invention in 1998, and yet still has not fully developed its Chimney software. (Craft Declaration, ¶¶ 3, 6, 17). Moreover, although other companies announced plans to provide TCP offload software, only one actually has, and that company developed the software with Alacritech's assistance. (Boucher Declaration, ¶ 18.) Laudatory statements from Microsoft and other experts also demonstrate the nonobviousness of the '868 patent. (Lauer Declaration ¶¶ 5-

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7, Exs. E-G.) Microsoft does not contest this evidence of these objective indicators of nonobviousness. Therefore, the Court concludes that Microsoft has not demonstrated obviousness creates a substantial question as to the validity of the '868 patent.

c. Inclusion of Subject Matter Ineligible to be Patented

Microsoft argues that Claim 1 is invalid because it claims subject matter outside the scope of what Congress has defined as eligible to be patented pursuant to 35 U.S.C. § 101. Section 101 provides: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. The Supreme Court has construed § 101 broadly, but not without boundaries. *Diamond v. Diehr*, 450 U.S. 175, 182 (1981). "The Supreme Court has identified three categories of subject matter that are unpatentable, namely 'laws of nature, natural phenomena, and abstract ideas.'" *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373 (Fed Cir. 1998) (*quoting Diehr*, 450 U.S. at 185).

Microsoft has not demonstrated that Claim 1 falls into any of these three categories. Instead, Microsoft relies on the Manual of Patent Examining Procedure ("MPEP") to argue that a "set of instructions" claimed by Alacritech is unpatentable because Claim 1 does not disclose a computer-readable medium or any other include any structure for carrying out the claimed functions.[3] (Opp. at 11-12.) As discussed above, the Court has already concluded that Claim 1 sufficiently identifies structure associated with the "set of instructions," and thus rejects Microsoft's argument that Claim 1 is unpatentable.

[3] MPEP provides: "Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and [Patent and Trademark] Office personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material." MPEP, § 2106(IV)(B)(1)(a)(Eighth Ed., Aug. 2001). Microsoft acknowledged the MPEP does not have the force of law, and failed to cite any binding authority demonstrating that computer software as disclosed by Claim 1 is unpatentable.

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d. Indefiniteness

Lastly, Microsoft contends that Claim 1 is invalid for failure to satisfy the definiteness requirement of 35 U.S.C. § 112 ¶ 2 because the specifications do not include a standard for measuring the degree of intelligence required for the claimed "intelligent TCP offload mechanism." (Opp. at 12.) According to Microsoft, there is no standard measure known to one of skill in the art, or disclosed in the intrinsic record, to determine whether a TCP offload mechanism is "intelligent." *Id*. Determining whether a claim is definite pursuant to § 112 ¶ 2 "requires an analysis of 'whether one skilled in the art would understand the bounds of the claim when read in light of the specification.... If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, § 112 demands no more.'" *Personalized Media Communications*, 161 F.3d at 705 (*quoting Miles Lab., Inc. v. Shandon, Inc.*, 997 F.2d 870, 875 (Fed. Cir.1993)). The term "intelligent" modifies the "TCP offloading mechanism" in the '868 patent. The inventors of the '868 patent used the term "intelligent" to distinguish their network interface card ("NIC") from conventional, pre-existing NICs or "dumb" NICs. (Almeroth Decl., ¶¶ 65-57.) Alacritech presents evidence demonstrating that one skilled in the art would understand that the term "intelligent" is used to items from those that are "dumb." For example, the Microsoft Press Computer Dictionary defines "intelligence" as: "The ability of hardware to process information. A device without intelligence is said to be dumb; for example, a dumb terminal connected to a computer can receive input and display output but cannot process information independently ...." Microsoft Press Computer Dictionary, 3rd Ed. (1997). The Court concludes that "intelligent TCP offloading mechanism" read in light of the specification would reasonably apprise those skilled in the art of the scope of the invention, and that therefore, Claim 1 is not indefinite pursuant to § 112 ¶ 2.

Accordingly, the Court finds that Microsoft has not demonstrated the existence of a substantial question regarding validity of the '868 patent.

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iii. Infringement

Alacritech presents evidence that Microsoft's TCP Chimney software infringes Claim 1 as construed by the Court. (*See* Almeroth Decl. ¶¶ 27-51.) Microsoft does not contest Alacritech's characterization of its TCP Chimney software. Instead, to challenge Alacritech's claim of infringement, Microsoft relies solely on its proposed constructions that the Court rejected. Microsoft contends that the "intelligent TCP offload mechanism" in the '868 patent is a "specialized communication device capable of processing the data movement portion of the protocol stack *without any control* by the host." Because, according to Microsoft, TCP Chimney software maintains control of the offload target, its software does not infringe. (Opp. at 3-4.) However, because the Court rejected Microsoft's proposed construction limiting the "intelligent TCP offload mechanism" to devices over which the host has no control, Microsoft's argument against infringement on this basis fails.

Microsoft's second argument against infringement relies on its contention that "a set of instructions" must be construed pursuant to § 112 ¶ 6 as a means-plus-function element. Again, because the Court determined that § 112 ¶ 6 does not apply, Microsoft's argument against infringement on this basis fails as well. The Court therefore concludes that Alacritech has demonstrated a likelihood of success on the merits with respect to validity and infringement.

B. Irreparable Harm

Alacritech is entitled to a presumption of irreparable harm because it has demonstrated a likelihood of success on the merits. *Purdue Pharma L.P. v. Boehringer Ingleheim GmbH*, 237 F.3d 1359, 1367 (Fed. Cir. 2001). "This presumption derives in part due to the "finite term of the patent grant, for patent expiration is not suspended during litigation and the passage fo time can work irremediable harm." *Amazon.com*, 239 F.3d at 1350 (citations omitted). To rebut the presumption, Microsoft bears the burden of demonstrating that no irreparable harm will in fact occur should a preliminary injunction be denied. *Purdue Pharma*, 237 F.3d at 1367-68 (Fed. Cir. 2001).

In addition to the benefit of the presumption, Alacritech made an affirmative showing that it will suffer irreparable harm if the Court does not issue the preliminary injunction.

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Alacritech presented evidence that it is a small start-up company which will not be able to withstand the infringing competition from larger and better known hardware vendors that is likely to occur if Microsoft publicly distributes its TCP Chimney software. (*See* Boucher Declaration, ¶ 23.) In addition, Alacritech contends price erosion and lost profits will continue to occur if Microsoft is allowed to continue infringing. (*Id*. at ¶ 26.) Microsoft does not submit any evidence contradicting Alacritech's. Instead, Microsoft relies solely on what it claims was Alacritech's "unexplained delay" in seeking injunctive relief. While significant delay *may* be sufficient to negate irreparable harm, "a showing of delay does not preclude, *as a matter of law*, a determination of irreparable harm." *Hybritech Inc., v. Abbott Laboratories*, 849 F.2d 1446, 1457 (Fed. Cir. 1988); *see also Polymer Technologies, Inc. v. Bridwell*, 103 F.3d 970, 976 (Fed. Cir. 1996) (finding that delay in bringing suit four months did not rebut presumption of irreparable harm). Alacritech contends it was on notice of Microsoft's alleged infringement in early May 2004. (*See* Craft Declaration, ¶ 15.) Alacritech filed this lawsuit in August 2004, and then filed it motion for preliminary injunction a little over three months after that, in November 2004. Considering Alacritech's small size and financial resources, the Court concludes that this period of delay is not significant enough to rebut the rebut the presumption and overcome Alacritech's evidence of irreparable harm.

C. Balance of the Hardships and Public Interest

Microsoft has not yet released its TCP Chimney software. Given this fact, the Court concludes that the balance of hardships and the public interest weigh in favor of issuing the preliminary injunction.

CONCLUSION

For the foregoing reasons, the Court GRANTS Alacritech's motion for preliminary injunction filed by plaintiff Alacritech, Inc. Within ten days of the entry of this Order, Alacritech shall file with the Clerk of the Court an undertaking in the form of a bond, certified check or certificate of deposit in the amount of $1,000,000 pursuant to Federal Rule of Civil Procedure 65(c). The above injunction is effective on Alacritech's filing of the undertaking.

The parties are ORDERED to meet and confer and submit a joint status report within twenty-one days from the date of this Order. In the status report, the parties shall address, *inter alia*, (1) their intentions regarding any appeal of this Order, (2) if appealed, whether the parties intend to seek a stay of proceedings pending the appeal, and (3) the parties positions regarding alternative dispute resolution.

Dated: April 12, 2005

/s/ Jeffrey S. White
JEFFREY S. WHITE
UNITED STATES DISTRICT JUDGE

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