IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS TYLER DIVISION

REALTIME DATA, LLC D/B/A IXO,	§
	§
Plaintiff,	§
	§
V.	§
	§
PACKETEER, INC., et al.,	§
	§
Defendants.	§
	§

Civil Action No. 6:08cv144-LED-JDL

MEMORANDUM OPINION AND ORDER

This claim construction opinion provides a supplemental construction for the disputed term "data storage rate" in claim 1 of U.S. Patent No. 6,601,104 ("the '104 patent") asserted by Plaintiff Realtime Data, LLC d/b/a IXO ("Realtime") against Blue Coat Systems, Inc., Packeteer, Inc., 7-Eleven, Inc., ABM Industries, Inc., ABM Janitorial Services-South Central, Inc., and Build-A-Bear Workshop, Inc. (collectively, "Blue Coat").

BACKGROUND

The asserted patent derives from a family of patents claiming data acceleration. The data acceleration patent family is comprised of the '104 patent, the '158 patent, and the '937 patent. This patent family teaches systems and methods for providing accelerated data storage and transmission. Realtime elected on July 27, 2009 to assert claims 1 and 12 of the '104 patent against Blue Coat (Doc. No. 435). Claim 1 of the '104 patent provides:

1. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing accelerated data storage and retrieval, said method steps comprising: receiving a data stream at an input data transmission rate which is greater than a data storage rate of a target storage device;
compressing the data stream at a compression rate that increases the effective data storage rate of the data storage device; and
storing the compressed data stream in the target storage device.

'104 patent at 18:40–52 (claim 1).

LEGAL STANDARD

The claims of a patent define the patented invention. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389–90 (1996). Under *Markman v. Westview Instruments, Inc.*, district courts construe the scope and meaning of disputed patent claims as a matter of law. 517 U.S. at 373. Claims are construed from the standpoint of a person having ordinary skill in the art, *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003), and according to the Federal Circuit, the court must "indulge a heavy presumption that a claim term carries its ordinary and customary meaning." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (internal quotations omitted); *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) ("the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention").

The first step of the claim construction analysis requires the court to look to the intrinsic evidence, beginning with the words of the claims themselves, followed by the specification and—if in evidence—the prosecution history. *Teleflex, Inc. v. Ficosa N. Am.*, 299 F.3d 1313, 1324 (Fed. Cir. 2002); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582–84 (Fed. Cir. 1996); *see also Phillips*, 415 F.3d at 1315 ("the claims themselves provide substantial guidance as to the

meaning of particular claim terms"). A term's context in the asserted claim can be very instructive, and other claims may aid in determining the term's meaning because claim terms are typically used consistently throughout the patent. *Phillips*, 415 F.3d at 1314.

The claims of a patent "must [also] be read in view of the specification, of which they are a part" because the specification may help resolve ambiguity where the words in the claims lack clarity. *Id.* at 1315; *see also Teleflex*, 299 F.3d at 1325. Yet, the written description should not trump the clear meaning of the claim terms. *Tate Access Floors, Inc. v. Maxcess Techs., Inc.,* 222 F.3d 958, 966 (Fed. Cir. 2000) ("[a]lthough claims must be read in light of the specification of which they are part . . . it is improper to read limitations from the written description into a claim"); *Arbitron, Inc. v. Int'l Demographics Inc.*, No. 2:07-cv-434, 2009 WL 68875, at *3 (E.D. Tex. Jan. 8, 2009) ("although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments").

It is a bedrock principle of patent law that the court, and not the jury, should resolve claim construction disputes. *See Markman*, 517 U.S. at 388–89 (explaining why judges "are the better suited to find the acquired meaning of patent terms"). Accordingly, district courts have "considerable latitude in determining when to resolve issues of claim construction." *Creative Internet Advertising Corp. v. Yahoo Inc., et al.*, No. 6:07-cv-354, 2009 WL 2382136, at *2 (E.D. Tex. July 30, 2009) (quoting *Cytologix Corp. v. Ventana Medical Systems, Inc.*, 424 F.3d 1168, 1172 (Fed. Cir. 2005)); *see also NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1305 n. 8 (Fed. Cir. 2005) (noting that district courts are not required to adhere to specific timeline in making claim construction rulings). The Federal Circuit has recognized that *Markman* does not require claim construction to

occur at an early stage in the case. *Sofamor Danek Group, Inc. v. DePuy-Motech, Inc.*, 74 F.3d 1216, 1221 (Fed. Cir. 1996). The Federal Circuit has even declined to adopt rules setting forth the appropriate time for claim construction proceedings, in favor of a flexible, case-by-case approach. *See Vivid Tech., Inc. v. Am. Science & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) ("We see no need for [a rule setting forth when claim construction should occur], for the stage at which the claims are construed may vary with the issues, their complexity, the potentially dispositive nature of the construction, and other considerations of the particular case."). Yet, because the jury must be instructed on the proper meaning of disputed claim terms, claim construction must occur prior to instructing the jury. *See Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1556 (Fed.Cir. 1995) (district court heard claim construction arguments after the close of evidence); *see also Mobile Hi-Tech Wheels v. CIA Wheel Group*, 514 F. Supp.2d 1172, 1189 (C.D. Cal. 2007) (noting that the only limitation on district courts regarding the timing of claim construction proceedings is that the claims must be construed before the jury is instructed).

Furthermore, the Federal Circuit emphasizes that it is a district court's duty to construe all disputed terms before they reach the jury. *See O2 Micro Int'l Ltd. v. Beyond Innovation, et al.*, 521 F.3d 1351, 1362–63 (Fed. Cir. 2008). In *O2 Micro*, the Federal Circuit noted that the parties had agreed to the "meaning" of the term but not to the claim's "scope." *Motorola Inc. v. Vtech Commc 'ns, Inc.*, No. 5:07-cv-171, 2009 WL 2026317, at *7 (E.D. Tex. July 6, 2009) (citing *O2 Micro*, 521 F.3d at 1361). Therefore, regardless of the stage of litigation, "when the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute. . . . When the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it." *O2 Micro*, 521 F.3d at 1362–63.

PROCEDURAL HISTORY AND THE PARTIES' CONTENTIONS

1. Initial Claim Construction

The Court previously issued a Memorandum Opinion and Order (Doc. No. 371) ("Claim Construction Order") on June 22, 2009. This Order construed "data storage rate" as well as a number of other terms disputed amongst Realtime and multiple Defendants in this case. The initial dispute surrounding the meaning of "data storage rate" centered around whether the storage rate is "sustained."¹ CLAIM CONSTRUCTION ORDER at 12. Construing the term to mean "*maximum sustained rate at which data can be written to the data storage device*," the Court relied on language in the specification to find that "data storage rate" referred to a continuous storage process. *Id.* at 13–14. In determining that the claimed invention referred to continuous storage, the Court specifically pointed to intrinsic language describing the "fundamental problem" in the art at the time the patent issued. This relevant portion reads: "magnetic disk mass storage devices. . . suffer from significant seek-time access delays along with profound read/ write data rate limitations." '104 patent at 2:14–28; '158 patent at 2:1–34. This specification language continues to play an important role in the instant claim scope dispute.

2. Summary Judgment

At the summary judgment stage of this case,² Blue Coat Systems, Inc. and 7-Eleven, Inc.

¹ At the time of initial construction, Plaintiff argued for a "sustained" storage rate wherein storage rates may increase instantaneously. CLAIM CONSTRUCTION ORDER at 12. This position relied heavily on disclosures made in the '158 patent specification where the claimed invention provided "continuous" storage by increasing the effective bandwidth of the data storage process without increasing the instantaneous bandwidth of the data storage device. *Id.* During the *Markman* stage, Blue Coat had proposed a construction that limited "data storage rate" to the "peak" or instantaneous rate of a data storage device. CLAIM CONSTRUCTION ORDER at 14. The Court ultimately rejected Blue Coat's arguments for an instantaneous or peak rate and adopted a sustained storage rate. *See id.*

² A summary judgment hearing was held on October 6, 2009 (Doc. No. 678) ("Transcript").

(collectively, "Blue Coat") filed a Motion for Partial Summary Judgment of Non-Infringement of the '104 patent (Doc. No. 470) ("Blue Coat MSJ Opening").³ It was at this stage in the proceedings where the claim scope dispute over "data storage rate" first became apparent.

The Blue Coat non-infringement theory asserts that the accused ProxySG devices do not practice at least two essential limitations of the claim. BLUE COAT MSJ OPENING at 1. In particular, Blue Coat maintains that the ProxySG devices cannot meet the first element of claim 1 because the ProxySG's input data transmission rate is less than the maximum sustained rate at which data can be written to the disk drive. *Id.* at 6. Moreover, because the maximum sustained rate at which data can be written to disk drives in the ProxySG devices is the internal transfer rate published in the hard disk drive manufacturer's data sheet, Blue Coat concludes that the ProxySG devices are operating outside of the claimed elements. BLUE COAT MSJ OPENING at 7. In sum, Blue Coat argues that in the ProxySG devices, the internal transfer rate (as derived from the hard disk drive manufacturer's data sheet) is the "data storage rate," as construed by the Court, and therefore the ProxySG cannot "receive a stream at an input transmission rate which is greater than a data storage rate of a target storage device." *See Id.* at 7; '104 patent at 18: 40–47.

Realtime sets forth the instances in which it perceives there are material facts that should be left to the jury to decide. Realtime disputes the Blue Coat theory, arguing that the '104 patent includes the "practical limitations" of a fragmented disk drive (such as increased seek times) that reduce the ProxySG's data storage rate to a rate below the rate at which a data stream can be received by the ProxySG (i.e., an input data transmission rate). REALTIME MSJ SURREPLY at 3. Realtime

³ Realtime opposed Blue's Non-infringement Motion with a Response (Doc. No. 528) ("Realtime MSJ Response") and a Sur-reply (Doc. No. 580) ("Realtime MSJ Surreply"), and Blue Coat further clarified its summary judgment arguments in a Reply (Doc. No. 555) ("Blue Coat MSJ Reply").

additionally points out that under real world operating conditions,⁴ the effect of fragmentation reduces the ProxySG's maximum sustained data storage rate to a level far below the write speed reported in the hard disk drive manufacturer's data sheet specifications. REALTIME MSJ RESPONSE at 7.

3. Supplemental Claim Construction

Following the summary judgment hearing, the claim scope of "data storage rate" was in dispute. Accordingly, in an Order issued on October 19, 2009 (Doc. No. 635), the Court identified the need for supplemental claim construction briefing and an additional hearing addressing the meaning of "data storage rate." The parties filed Opening briefs and Responses addressing four discrete issues raised by the Court. These issues were:

- Do manufacturer data specification sheets for HDD storage devices express a device's maximum sustained write rate as a theoretical performance parameter or as a practical performance parameter that is realized when the device is deployed for its intended use?
- 2. What is a HDD storage device's "internal transfer rate" as shown in manufacturer data sheets and how is it determined? Is it a calculated value or is it a measurement of actual performance when the device is deployed for its intended use?
- 3. What effect does each of "seek time" and "fragmentation" have on the maximum sustained write rate of a HDD storage device and what is the relationship between

⁴ The write speed reported in the disk drive manufacturer's specification sheets does not take into account characteristics such as time spent completing seek operations and the slowing effect of fragmentation, when determining the ProxySG's internal transfer rate. BLUE COAT MSJ OPENING at 10–11; REALTIME MSJ RESPONSE at 7.

"fragmentation" and "seek time" in regard to a HDD storage device's maximum sustained write rate?

4. Propose a supplemental construction for "data storage rate" that addresses what limitation, if any, that "seek time" and "fragmentation" have on the "maximum sustained rate at which data can be written to the data storage device," including identification of intrinsic and extrinsic evidence in support of such construction.

Consistent with the Court's Order, Realtime filed an Opening Supplemental Claim Construction Brief (Doc. No. 661) ("Realtime Supp. Brief") and a Response (Doc. No. 669) ("Realtime Supp. Response"). Blue Coat also filed an Opening Supplemental Claim Construction Brief (Doc. No. 659) ("Blue Coat Supp. Brief") and a Response (Doc. No. 668) ("Blue Coat Supp. Response"). The Court held a Supplemental Claim Construction hearing on November 10, 2009 (Doc. No. 681).

Blue Coat's Supplemental Claim Construction Position

Blue Coat responded to Court's inquiry by advocating that "data storage rate" either not be further construed, or alternatively, be construed as follows: "for hard disk drives, the maximum sustained rate at which data can be written to the data storage device means the internal data transfer rates set forth in the manufacturer's specification sheets." BLUE COAT SUPP. BRIEF at 10. Blue Coat specifically contests a construction of "data storage rate" that includes hard disk operations other than writing data to a data storage device. BLUE COAT SUPP. RESPONSE at 2 (maintaining that the '104 patent does not address seek time and rotational latency when writing data to a data storage device).

Blue Coat submits that the term should be read as "the maximum sustained write rate as provided in the manufacturer's specification sheet," because Blue Coat reads the '104 patent specification and the records of this case to understand "data storage rate" as a calculation expressing actual performance as set forth in the hard disk drive manufacturer's data sheet specifications. BLUE COAT SUPP. BRIEF at 3 (rejecting that these calculations are theoretical performance parameters). Thus, Blue Coat contests that seek time or fragmentation has any effect on the maximum sustained write rate of a hard disk drive. BLUE COAT SUPP. BRIEF at 5 (concluding that seek time and fragmentation are not rates, and "while fragmentation may affect the number of seeks necessary to write a given filed, it does not affect the maximum sustained write rate").

Additionally, Blue Coat maintains that since seek time and fragmentation are constantly changing and vary upon different disk drive characteristics, these variables subvert the public notice function of a patent claim and cannot be incorporated into a construction of "data storage rate." BLUE COAT SUPP. BRIEF at 3. Blue Coat posits that one of ordinary skill in the art would not be able to objectively determine "data storage rate" under a range of "constantly changing" disk drive conditions that would alter the rate every time a new data block is stored to the disk. BLUE COAT SUPP. RESPONSE at 5. Alleging that the level of fragmentation; the number of seeks employed; and the size of the data to be stored makes an infringement analysis "impossible," Blue Coat argues that the inclusion of seek time and rotation latency in the definition of "data storage rate" will render the claim term indefinite. *Id.* at 4–5.

Realtime's Supplemental Claim Construction Position

Realtime requests that the Court further construe "data storage rate" to mean "*the maximum* sustained rate at which data can be written to the data storage device, including, in the case of hard disk drives, seek time, rotational latency, and data transfer." REALTIME SUPP. BRIEF 1–2. According to Realtime, this construction is consistent with the Court's initial construction, which recognized

that the data storage rate is limited by "seek-time access delays," and reflects the purpose of the '104 invention to "eliminate the bottleneck(s) that occur where the rate of incoming data to be stored is greater than the rate at which the data storage device can store data." *Id*.

Realtime emphasizes the "real-world limitations" that were disclosed in the '104 patent as they would have been understood by a person of ordinary skill in the art. REALTIME SUPP. BRIEF at 4. Specifically, the Plaintiff's arguments focus on the total number of seek operations, the seek time for each operation, and the rotational latency⁵ that necessarily impacts the hard disk drives' data storage rate, in addition to the internal transfer rate. *See id*. In considering these practical considerations, Realtime proposes a construction where "data storage rate" is not equivalent to the internal transfer rate (the speed at which the drive head transfers data onto the disk platters) identified in the hard disk drive the manufacturer's data sheets. Instead, Realtime argues that in order to store data, a hard disk drive must perform a "write operation" which includes at least four separate actions.⁶ *Id*. at 3. Disputing that the hard disk drive manufacturer's data sheet is the claimed "data storage rate," Realtime suggests that the maximum sustained rate must be determined by performing actual tests on the hard drive when it is encumbered by performance factors.⁷ REALTIME SUPP. BRIEF

⁵ "Rotational latency" is an additional source of delay related to "seek time." During the seek, once the head of the drive is located over the designated track, the disk has to rotate itself so that the appropriate sector is located underneath the disk head. Only after this delay can data be received by the disk head for the ensuing data transfer. REALTIME SUPP. BRIEF at 3.

⁶ Realtime suggests that "write operation" includes, at least: (1) interpreting the write request from the host computer; (2) performing a "seek operation" to place the head of the drive on top of the proper track; (3) rotating the disk to place the proper sector under the disk; and (4) transferring data to the surface of the disk. REALTIME SUPP. BRIEF at 3. A write operation is limited by how quickly all of the corresponding actions can be completed and by *how many* individual write operations must be performed in order to store the data to the disk. *Id*.

⁷ The supplemental construction proposed by Realtime acknowledges that factors such as seek time, rotational latency, and internal transfer rate potentially slow down the maximum sustained rate at which data is stored, and the supplemental construction also accounts for the real world effect of fragmentation in data storage. REALTIME SUPP. BRIEF at 8.

at 6–7.

Finally, in its responsive briefing, Realtime opposes Blue Coat's assertions that a claim construction including performance factors would render the claim term indefinite. Realtime argues that testing the product for its intended use, under objective conditions can be accomplished by one of ordinary skill in the art and leaves the claim term intact. REALTIME SUPP. RESPONSE at 4 (internal citations omitted). Using Blue Coat's own testing methodologies, Realtime maintains that the hard drive in the ProxySG "reaches maximum, or steady state fragmentation after approximately 18 hours." Id. at 4-5 (explaining that Mr. McAlpine had no trouble testing the hard drive performance under conditions that induce "steady-state fragmentation"). Therefore, testing the data storage rate of the ProxySG under a condition of "steady state" fragmentation of the disk drive, Realtime concludes that there is no reason to complete a separate infringement analysis for every set of circumstances. Under these testing conditions, Realtime contends that claim 1of the '104 patent would retain a defined claim scope if the Court were to adopt a supplemental construction of "data storage rate" that includes the limiting steps that are inherent to the data storage process. See id. at 5.

DISCUSSION

I. "data storage rate"⁸

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Plaintiff's Proposed Construction Defendants' Proposed Construction	
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⁸ The term "data storage rate" is contained in claims 1, 13, and 25 of the '104 patent and claims 1 and 9 of the '158 patent.

The maximum sustained rate at which data can be written to the data storage device, including, in the case of hard drives, seek time and rotational latency The maximum rate at which data can be stored on the data storage device⁹

The parties' primary dispute lies in whether the construction of "data storage rate" should include performance factors such as seek time and rotational latency in addition to the time associated with the internal transfer rate. As indicated in the initial Claim Construction Order, the asserted claims of the '104 and '158 are informed by what the patentee, at the time of the invention, called a "fundamental problem" of limited data storage rates. CLAIM CONSTRUCTION ORDER at 14; '104 patent at 2:33–34. Importantly, the specification of the patent reads: "magnetic disk mass storage devices . . . suffer from *significant seek-time access delays* along with *profound read/write data rate limitations*." '104 patent at 2:14–28 (emphasis added). This language persuades the Court that one of ordinary skill in the art, reading the claim term "data storage rate" in the context of the '104 patent, would conclude that the rate is determined by the *entire write operation* following receipt of a write request, which includes seek access time and rotational latency.

Blue Coat asks that the Court narrowly understand the term "write" to include only the limited transfer of information from the drive head to the disk. In light of the '104 patent's specification, however, the Court construes "data storage rate" to include the parameters impacting the overall data storage process set forth in the claimed invention. One of ordinary skill in the art would read column 2 of the specification to necessarily include practical limitations affecting a data storage process that goes beyond just the transfer of data from the drive head to the disk. REALTIME

⁹ In the alternative, Blue Coat proposed the construction: "For hard disk drives, the maximum sustained rate at which data can be written to the data storage device means the internal transfer rates set forth in the manufacturer's specification sheets."

SUPP. BRIEF at 4. Further, a person of ordinary skill in the art would understand that in order to minimize the bottleneck problem of hard disk drives discussed in the '104 patent, a construction of "data storage rate" must encompass the entire write operation (address lookup, seek operation, rotation of disk platter, data transfer). *See also* REALTIME SUPP. RESPONSE at 2. Accordingly, the Court reads the specification to disclose a series of steps that are directed toward removing bottleneck(s) and that ultimately affects the performance of the data storage process.

Thus, the Court rejects Blue Coat's interpretation of "write" as being the internal transfer rate listed in the hard disk drive manufacturer's data sheet because it is not consistent with the '104 patent's specification. The initial Claim Construction Order previously recognized that seek time is involved in the write operation, CLAIM CONSTRUCTION ORDER at 14, and the language of the patent is dealing with real world practical considerations. *See also* '104 patent at 2:23–37 (using "data rate" and "data transfer rate" to inform an understanding of "write" that means a write operation process that includes seek time and rotational latency). A supplemental construction for "data storage rate," therefore, should acknowledge that a number of seek operations may have to be performed when a disk is functioning in a fragmented state, which causes a reduction in the data storage rate of a hard disk drive.

As explained by Realtime, (1) disk fragmentation occurs over time; and (2) the number of seek operations will increase as the disk becomes fragmented. REALTIME SUPP. BRIEF at 8. This effect will necessarily impact the data storage rate. Blue Coat discredits the effect of fragmentation by arguing that data sheet specifications provide definitive information in determining the "data storage rate," BLUE COAT SUPP. RESPONSE at 5, but again, the Court disagrees. The Court finds that the data storage rate of a hard disk drive is determined through "actual real-world performance" as

it would vary according to "real world operating conditions." REALTIME SUPP. RESPONSE at 3 (internal citations omitted). Therefore, when considering the effect of fragmentation, the Court adopts a construction that allows for the "data storage rate" of a device to be determined by testing it as deployed at steady state fragmentation, an objectively testable parameter.¹⁰

One of ordinary skill in the art would understand "significant seek access delays along with profound read/write limitations" to refer to disk fragmentation, and moreover, one skilled in the art would further understand that the slowest speed at which the (maximum sustained) data storage rate would occur is with the hard disk drive at steady state fragmentation.¹¹ *See* '104 patent at 2:20–23. Specifically, the Court finds that the maximum sustained storage rate will be determined in a manner that is inclusive of seek time and fragmentation, and will objectively base "data storage rate" on measurements that are taken once a storage device reaches steady state fragmentation.¹² Accordingly, the supplemental construction accounts for performance factors affecting the claimed invention as it would function in the real world where one of ordinary skill in the art could test the hard drive and calculate the "data storage rate" once it has achieved steady state fragmentation. Moreover, determining the data storage rate, as construed, of an accused device at a condition of steady state fragmentation on the hard disk drive provides an objective standard by which one skilled in the art can determine infringement or non-infringement. Blue Coat contends that the condition of

¹⁰ The Court rejects Realtime's proposed construction of "maximum sustained rate. . . as measured at maximum fragmentation of the hard disk drive *when deployed for its intended use*" as incomprehensible. *See* Doc. Nos. 682, 683.

¹¹ "Steady state," an established engineering principle, is a concept that has a plain and ordinary meaning to a person of ordinary skill in the art.

¹² Steady state fragmentation in the accused ProxySG devices occurs after approximately 18 hours. REALTIME SUPP. RESPONSE at 4 (citing TOAST testing performed by Blue Coat performance engineer, Mr. Gary McAlpine).

fragmentation of a hard disk drive will vary depending upon each particular installation and manner of using the accused devices. *See* BLUE COAT SUPP. RESPONSE at 5. Nevertheless, a condition that can expectedly be achieved in the ordinary use of the accused devices is steady state fragmentation, as shown by Blue Coat's own testing. In this regard, the Court also gives due recognition to the principle that an accused product that sometimes, but not always, embodies a claimed method nonetheless infringes. *See, e.g., Bell Commc'ns Research, Inc. v. Vitalink Commc'ns Corp.*, 55 F.3d 615, 623 (Fed. Cir. 1995).

Thus, in order to solve the problem of limited data storage rates of data storage devices by providing an effective increase in the data storage rate, this term must refer to the maximum sustained rate at which the device can operate to store data and must include the practical limitations disclosed in the specification of the '104 patent. For the foregoing reasons, the Court finds that the proper construction for "data storage rate" is "maximum sustained rate at which data can be written to the data storage device, including, in the case of hard disk drives, seek time, rotational latency, and data transfer in a condition of steady state fragmentation of the disk drive."

CONCLUSION

The Court provides a supplemental construction for the disputed claim term "data storage rate" in the manner discussed above. Additionally, both parties are granted an opportunity to serve supplemental expert reports consistent with the construction of "data storage rate" set forth in this Order. All expert report supplementation should be completed by **December 8, 2009**.

So ORDERED and SIGNED this 23rd day of November, 2009.

John

UNITED STATES MAGISTRATE JUDGE

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