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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

ALTNET, INC., BRILLIANT DIGITAL ENTERTAINMENT, INC. and KINETECH, INC., Plaintiffs, vs. STREAMCAST NETWORKS, INC. and MICHAEL WEISS, Defendants.	Case No. CV-06-5086 SJO (Ex) **PLAINTIFFS' CLAIM CONSTRUCTION OPENING BRIEF** **DATE:** May 7, 2007 **TIME:** 10:00 a.m. **CTRM:** 1600 (Spring Street) Hon. S. James Otero **Discovery Cutoff:** July 10, 2007 **Pretrial Conference:** Sept. 24, 2007 **Trial Date:** October 2, 2007

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1. BACKGROUND TO PLAINTIFFS' U.S. PATENT NOS. 5,978,791, 6,415,280, AND 6,928,442

Today, billions of files are transmitted directly from one computer to another computer through networks referred to as "peer to peer networks." These peer to peer networks are ad hoc combinations of computers, each having a software application, which allows users to search for, manage, and access data files held by other users through a common communication protocol. Extraordinary amounts of data are now made readily, and rapidly, available to billions of people through peer to peer networks.

Critical to the proper functioning of these peer to peer networks is the ability to uniquely identify, and access, data without *a priori* knowledge of the data storage location and without knowledge of precisely how each user may have chosen to name the data. As can be imagined, users adopt widely different approaches to naming files—a picture of a mountain may be alternatively named "mountain," "mountain range," "the peak," "vacation," or "nice picture," depending on the user. To efficiently search for and acquire data, a peer to peer network preferably identifies, accesses, and/or presents data in a manner that relies, at least in part, *on the actual data being sought* and not based solely on the way the data happens to be named by a user.[1]

The patents at issue in this case, U.S. Patent Nos. 5,978,791 (the "'791 Patent"), 6,415,280 (the "'280 Patent") and 6,928,442 (the "'442 Patent") (collectively, the "Patents"), claim computer network systems and methods in which data items are identified, accessed, and/or managed using data identifiers that are derived from the actual contents of the data item sought. These inventions have become fundamental to the operation of numerous peer to peer networks. In fact, Sharman Networks, distributor of the Kazaa Media Desktop software, which provides

[1] *See* Declaration of Hazim Ansari ("Ansari Decl."), Exhibit A, Declaration of Dr. Robert Dewar, ¶¶ 9-13.

access to one of the largest peer to peer networks in the world, has been a sublicensee of the '791 Patent since 2002.[1]

The '791 Patent, entitled "Data Processing System Using Substantially Unique Identifiers to Identify Data Items, Whereby Identical Data Items Have the Same Identifiers," was filed on October 24, 1997 and has a priority date extending back to April 11, 1995. There are 48 claims, including independent claims 1, 30, 33, 35, 36, 38, 40, and 46. The remaining 40 claims are dependent. Plaintiffs accuse StreamCast and Weiss of infringing claims 1-4, 6, 10, 11, 12, 14, 21, 23, 24, 29-31, 32, 38, 39, 40, and 48. The '791 patent claims novel systems and methods that use certain mathematical functions which, when applied to files being sought, or to parts of those files, generate substantially unique identifiers. For two data items with exactly the same content, the substantially unique identifier will be the same; conversely, it is highly likely that data items having different content will generate different identifiers. Once generated, the substantially unique identifier is then used to search, access, or perform other activities on or with the data item.[2]

The '280 Patent, entitled "Identifying and Requesting Data In Network Using Identifiers Which Are Based on Contents of Data," was filed on April 1, 1999 as a continuation of the '791 patent. There are 55 claims, including independent claims 1, 9, 10, 18, 23–27, 31, 34-36, 38, 40, 44, 52-55. The remaining 35 claims are dependent. Plaintiffs accuse Defendants of infringing claims 10, 11, 25 and 31. The '280 patent describes a networked information system in which content is served based on (a) computing data identifiers, as described above, and then (b) serving content in response to requests based on these identifiers. As in the '791 patent, the invention identified data items for access using an identifier sufficiently unique such that the possibility of clashes (e.g. different data items having the same identifier) can

[1] *See* Ansari Decl., ¶ 2.

[2] *See* Ansari Decl., Exhibit A, Declaration of Dr. Robert Dewar, ¶¶ 14-18.

statistically ignored.

Finally, the '442 Patent, entitled "Enforcement and Policing of Licensed Content Using Content-Based Identifiers," was filed on November 15, 2001 as a continuation of the '280 patent. There are 56 claims, including independent claims 1, 6-10, 13, 14, 22, 23, 31, 35-40, 42, 45-47, and 54-56. The remaining claims are dependent. Plaintiffs accuse Defendants of infringing claims 1, 2, 4, 5, 7, 14-21, 37, 45, and 52. The '442 patent describes methods and programs in which data is served based on (a) computing data identifiers, as described above, and then (b) providing the data depending upon whether the party requesting the data is licensed or authorized, or determining if the data is authorized or licensed. Again, as in both the '791 and '280 patents, data items are uniquely identified such that the possibility of clashes becomes statistically negligible.

II. PRINCIPLES OF CLAIM CONSTRUCTION

The Federal Circuit has established well-settled principles for construing patent claims in order to achieve a proper construction. Below is a summary of the legal standards relevant to the claim construction issues in this case.

A. Claim Terms Are Presumed To Carry Their Ordinary And Customary Meaning

The claims of the patent define the scope of an invention and therefore courts begin the construction process by examining the language of the claim itself. Phillips v. AWH, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*). Courts 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); Johnson Worldwide Associates, Inc. v. Zebco Corp., 175 F.3d 989 (Fed. Cir. 1999) ("a court must presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms.").

In determining what the ordinary and customary meaning of a claim term is, "the context of the surrounding words in a claim also must be considered." Arlington

Industries, Inc. v. Bridgeport Fittings, Inc., 345 F.3d 1318, 1325 (Fed. Cir. 2003). A court may "immerse itself in the specification, the prior art, and other evidence, such as the understanding of skilled artisans at the time of invention, to discern the context and normal usage of the words in the patent claim." Alloc, Inc. v. International Trade Commission, 342 F.3d 1361 (Fed. Cir. 2003), citing, Hoescht Celanese Corp. v. BP Chemicals, Inc., 78 F.3d 1575, 1579 (Fed. Cir. 1996). According to the Federal Circuit in Phillips:

> Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.... Such a person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field. The inventor's words . . . must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. Thus the court starts the decision making process by reviewing the same resources as would that person, to wit, the patent specification and the prosecution history." Phillips, 415 F.3d at 1312-1313 (internal quotations omitted).

Courts are cautioned, however, not to import limitations from the specification or prosecution history when discerning the ordinary and customary meaning of a claim term. Texas Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1201 (Fed. Cir. 2002) ("Consulting the written description and prosecution history as a threshold step in the claim construction process, before any effort is made to discern the ordinary and customary meanings attributed to the words themselves, invites a

violation of our precedent counseling against importing limitations into the claims.").

Dictionaries and scientific treatises may also help supply the pertinent context and usage for claim construction. "In many cases that give rise to litigation ... determining the ordinary and customary meaning of the claim requires examination of terms that have a particular meaning in a field of art. Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to 'those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.'" Phillips, 415 F.3d 1303, 1314 (*quoting* Innova/Pure Water v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1116 (Fed. Cir. 2004)).

Nonetheless, the intrinsic patent documents are "always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." Phillips, 415 F.3d at 1315 (*quoting* Vitronic Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). "'[T]he descriptive part of the specification aids in ascertaining the scope and meaning of the claims inasmuch as the words of the claims must be based on the description. The specification is, thus, the primary basis for construing the claims.'" Phillips 415 F.3d at 1315 (*quoting* Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452 (Fed. Cir. 1985). Extrinsic evidence, in general, is viewed "as less reliable than the patent and its prosecution history in determining how to read claim terms." Phillips, 415 F.3d at 1318.

B. The Presumption That Claim Terms Carry Their Ordinary And Customary Meaning May Be Overcome

While a court begins with the ordinary and customary meaning of the claim term, it must also examine the intrinsic record to determine whether anything in the record overcomes the presumption that the term has the ordinary meaning. Arlington Industries, 345 F.3d at 1326.

There are limited circumstances where the "heavy presumption" that a claim term is given its ordinary and accustomed meaning may be overcome and the court may supply a definition of a claim term or phrase different than its ordinary and accustomed meaning. CCS Fitness, 288 F.3d at 1366. In each circumstance there must be textual language from the patent specification that is clearly associated with a claim term and its proffered construction. Johnson Worldwide, 175 F.3d at 989.

First, a claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history. Id.; Johnson Worldwide, 175 F.3d at 990; *see* Phillips, 415 F.3d at 1316 ("[c]onsistent with that general principle, our cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs.").

Second, a claim term will not carry its ordinary meaning if the intrinsic evidence shows that the patentee (i) distinguished that term from prior art on the basis of a particular embodiment, (ii) expressly disclaimed subject matter, or (iii) described a particular embodiment as important to the invention. CCS Fitness, 288 F.3d at 1366-67.

In evaluating whether this second situation exists sufficient to depart from the ordinary means of a term, a court must proceed with caution—on the one hand, a court must interpret the claims in light of the specification; on the other hand, a court must avoid impermissibly importing limitations from the specification into the claims. Alloc, 342 F.3d at 1370. Only statements which evince a "clear and unmistakable surrender of subject matter" or a "clear disavowal of claim scope" will result in a construction that deviates from the ordinary meaning. Teleflex, Inc. v. Ficosa North America Corp., 299 F.3d 1313, 1325 (Fed. Cir. 2002).

Third, while the specification must be considered in determining how a patentee used a word or a phrase in the claim, a court cannot give a claim term a

meaning different than its ordinary meaning simply because the specification describes a certain embodiment as being preferred or only describes one or a few embodiments. E.I. Du Pont De Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1433 (Fed. Cir. 1988) ("It is entirely proper to use the specification to interpret what the patentee meant by a word or phrase in the claim. But this is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.").[4] If, however, the specification makes clear that the claimed invention is narrower than the claim language might imply, it is entirely permissible and proper to limit the claims. Alloc, 342 F.3d at 1366, citing, SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1345 (Fed. Cir. 2001).

Fourth, a claim term will not be given its ordinary and accustomed meaning if the term "chosen by the patentee so deprives the claim of clarity." CCS Fitness, 288 F.3d at 1367. In such cases, the court must construe the claim term consistent with the meaning found in the intrinsic patent record. J.T. Eaton & Co. v. Atlantic Paste & Glue Co., 106 F.3d 1563, 1568 (Fed. Cir. 1997).

Lastly, claim terms which are phrased using the word "means" give rise to a presumption that the inventor used the term advisedly to invoke the statutory mandates for means-plus-function clauses set forth in 35 U.S.C. § 112, ¶6. Sage Products, Inc. v. Devon Industries, Inc., 126 F.3d 1420, 1427 (Fed. Cir. 1997). This presumption is not conclusive. Where "a claim recites a function, but then goes on to elaborate sufficient structure, material, or acts within the claim itself to perform entirely the recited function, the claim is not in a means-plus-function format." Envirco Corp. v. Clestra Cleanroom, Inc., 209 F.3d 1360, 1365 (Fed. Cir. 2000), quoting, Sage Products, 126 F.3d at 1427-28.

In construing means-plus-function claim limitations, a court must first define

[4] A patentee need not "describe in the specification every conceivable and possible future embodiment of his invention." CCS Fitness, 288 F.3d at 1366, quoting, Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1344 (Fed. Cir. 2001).

the particular function claimed, and thereafter identify "the corresponding structure, material, or acts described in the specification." Sage Products, 126 F.3d at 1428.[5] Means-plus-function claim limitations are construed, pursuant to 35 U.S.C. § 112, ¶6, as covering "the corresponding structure, material, or acts described in the specification and equivalents thereof."

III. THE PARTIES' JOINT CLAIM CONSTRUCTION AND PRE-HEARING STATEMENT

For the Court's convenience, and consistent with the parties' February 12, 2007, Joint Claim Construction and Pre-Hearing Statement, Exhibit B to the Ansari Declaration provides agreed-to constructions for certain terms and Exhibit C lists the 25 disputed terms. For a number of the disputed terms, however, the parties' respective constructions differ in only minor, non-substantive respects, particularly in structure identified as performing recited means. In these areas, Plaintiffs believe either construction will not substantively impact claim scope. Accordingly, Plaintiffs will adopt Defendants' proposed constructions for the additional 13 terms listed in Exhibit D to the Ansari Declaration.[6]

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[5] Whether or not the specification adequately sets forth structure corresponding to the claimed function necessitates consideration of that disclosure from the viewpoint of one skilled in the art. Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1376 (Fed Cir. 2001), citing, North American Vaccine v. American Cyanamid Co., 7 F.3d 1571, 1579 (Fed. Cir. 1993); In re Ghiron, 442 F.2d 985, 991 (C.C.P.A. 1971) (stating that "if such selection would be 'well within the skill of persons skilled in the art,' such functional-type block diagrams may be acceptable and, in fact, preferable if they serve in conjunction with the rest of the specification to enable a person skilled in the art to make such a selection and practice the claimed invention with only a reasonable degree of routine experimentation."). Failure to disclose adequate structure corresponding to the recited function results in the claim being of indefinite scope and thus invalid under 35 U.S.C. § 112 (1). Thus, such a challenge to the patent requires a finding by clear and convincing evidence that the specification lacks disclosure of sufficient structure to be understood by one skilled in the art as being adequate to perform the recited function. Budde, 250 F.3d at 1376-77.

[6] In the Joint Claim Construction and Pre-Hearing Statement, the Parties separately propose a definition for "advertising a data item." However, this phrase is a part of the "means for advertising a data item" element and should not receive a separate construction. Therefore, Plaintiffs do not separately propose a definition for "advertising a data item."

IV. PLAINTIFFS' CONSTRUCTION OF THE 11 CLAIM TERMS REMAINING IN DISPUTE

To properly construe the claim terms at issue, the Court should determine the ordinary meaning of the terms from the perspective of one of ordinary skill in the art, as read in the context of the entire patent. Phillips, 415 F.3d at 1312-1313. A person of ordinary skill in the art relevant to the Patents in April 1995 would have: (1) at least a bachelors degree in computer science, electrical engineering, or a related field, or equivalent training in the course of employment, service in the military, or attendance at a trade school, and (2) some experience in the design of network systems, or a related field.[1]

For clarity, Plaintiffs have divided the presentation of its proposed constructions into three sections: (a) the means plus function claim terms (which only appear in the '791 Patent), (b) those claim terms ("substantially unique identifier," "substantially unique value," "message digest function," and "set of regions") whose definitions are clearly provided by the specification itself, and (c) those claim terms ("client request," "licensed/authorized parties," and "unlicensed/unauthorized parties") for which their plain and ordinary meaning, when read in the context of the specification, necessitates constructions that are broader than proposed by Defendants.

A. The Means Plus Function Claim Terms Of The '791 Patent Directly Equate To Portions Of The Data Structures And/Or Mechanisms Delineated In The Specification

The patented inventions are directed to systems and methods for the identification, access, and/or management of data items[2] using an identifier that is

[1] See Ansari Decl., Exhibit F, Deposition of Dr. Dewar ("Dewar Depo."), at 2:12-21.

[2] The specification expressly defines data items as follows: "the terms "data" and "data item" as used herein refer to sequences of bits. Thus a data item may be the contents of a file, a portion of a file, a page in memory, an object in an object-oriented program, a digital message, a digital scanned image, a part of a video or audio signal,

derived from the data item itself, and not wholly dependent upon information external to the data item, such as the name, origin, location, or address of the data item.[8] As a result of this novel approach to data management, numerous benefits and advantages can be achieved, including but not limited to: (a) identifying a particular data item as being present in the system or at a location in the system, by examining only the data identities of the data items, (b) providing transparent access to any data item by reference only to its identity and independent of its present location, and (c) tracking the uses of specific data items and files by content for accounting purposes.[9]

The specification describes the implementation of the invention(s) in the context of a data processing system, which may include a peer-to-peer network,[11] that relies on certain data structures and operates certain software "processes and mechanisms (services)" which are "grouped into the following categories: primitive mechanisms, operating system mechanisms, remote mechanisms, background mechanisms, and extended mechanisms."[12] The balance of the patent specification, from columns 6 through 39 provides a detailed description of the data structures used by the present invention and the mechanisms within each of the five groupings, including how that mechanism can be used to perform, or support, some type of identification, access, or management function. Thus, the systems and methods for the identification, access, and/or management of data items—and for achieving the aforementioned benefits and advantages—are expressly defined within this framework of a data processing system using specific data structures and software

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or any other entity which can be represented by a sequence of bits." Ansari Decl., Exhibit E, the '791 Patent, Col.1:54-60.

[8] *See Id.* at Col.3:32-35. Therefore, two pictures of a mountain range—the original named "Range" and stored in Location 1 and an exact copy named "Mountains" and stored in Location 2—would have the same identifier, even though they are stored in different locations and have different names.

[9] *See Id.* at Col.3:36-Col.4:34.

[11] *See Id* at Col.5:7-16.

[12] *See Id.* at Col.6:20-24.

mechanisms.

Claims 1-29 of the '791 Patent reflect the same framework. However, instead of using the words "data structure" or "mechanism," the claims use means-plus-function language to reference the data structure or mechanism that performs the claimed function. While the parties agree as to which limitations require construction as "means-plus-function" language, they dispute (in five instances) the structure from the specification corresponding to the recited means:

1. "Identity means for determining, for any of a plurality of data items present in the system, a substantially unique identifier"

The "identity means" term is present in independent claim 1 and, consequently, in dependent claims 2-29. The parties agree that stated function of the identity means is determining "for any of a plurality of data items present in the system, a substantially unique identifier."

The specification expressly defines both a data structure and a specific mechanism that performs the function of "for any of a plurality of data items present in the system" determining "a substantially unique identifier," which is also referred to as a "True Name," "data identity," or "data identifier."[9] First, the "Calculate True Name" mechanism defines how a True Name, or substantially unique identifier, is actually calculated. Second, the data structure referred to as the local directory extensions (LDE) table, described at column 8, lines 19 to 26, is a table that indexes a True Name with a pathname or contextual name (i.e. user provided name).[10] The LDE table is another structure for determining a substantially unique identifier for a data item present in the system. Using the LDE table, a True Name associated with a data item can be identified (or determined) from, for example, its user-provided name.

The parties agree that the "Calculate True Name" mechanism is at least one

[9] *See Id.* at Col.6:6-10.

[10] *See Id.* at Col.8:19-26.

structure for determining a substantially unique identifier.[9] Defendants, however, ignore the fact that the specification also defines data structures, such as the LDE table, from which the substantially unique identifier can be determined. First, the specification makes it clear that such data structures are important and "used to implement the mechanisms described herein."[10] Second, the specification expressly defines the structure, including the fields and description of those fields, for at least eleven data structures, one of which is the LDE table. Third, a core function of the LDE table is to relate the True Name of a data item with the data item's pathname or contextual name, thereby allowing the system to "determine" the True Name, or substantially unique identifier, from the pathname or contextual name.[11] In fact, as recognized by both parties, the "existence means," defined above, is expressly described as using the LDE table to determine if a True Name exists locally."[12]

The specification provides no basis for limiting the identity means to one form of "determining," namely calculating the substantially unique identifier." Given the importance of the data structures to the operation of the invention, it would be error to confine the specification structure corresponding to "identity means" arbitrary as a single software mechanism, and not to include the underlying enabling data structure. Thus, the structure corresponding to the "identity means" is the Calculate True Name mechanism and LDE table, described at column 8, lines 19 to 26.

2. "Access means for accessing a particular data item using the identifier of the data item"

The "access means" term is present in claims 4, 6-9, 11, 14-17, 21, 23 and 29. The parties agree that the function of the access means is to access a particular data

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[9] *See* Joint Claim Construction and Pre-Hearing Statement, 8.

[10] *See* Ansari Decl., Exhibit E, the '791 Patent, Col.7:62-63.

[11] *See Id.* at Col.8:19-26.

[12] *See Id.* at Col.15:54-56.

item using its identifier. The specification defines at least four mechanisms that access a data item based upon its identifier: the Realize True File mechanism described at column 16, lines 11-37, the Make True File Local mechanism described at columns 17, lines 10-45, and the Request True File mechanism described at column 24, lines 45-62. Each mechanism provides the function of accessing, i.e. obtaining in some manner, a data item based upon its identifier. For example, the Realize True File mechanism makes a local copy of a file using its identifier, i.e. True Name.[19] The Make True File Local mechanism "is used when a True Name is known and a locally accessible copy of the corresponding file or data item is required ... This mechanism takes a True Name and returns when there is a local, accessible copy of the True File."[20] The Request True File mechanism "allows a remote processor to request a copy of a True File from the local processor. It requires a True Name and responds positively by sending a True File back to the requesting processor."[21] Thus, each mechanism corresponds to the access means.

Defendants' construe the access means as corresponding to the search function described at column 15, lines 54-56 and column 16, lines 39-61. However, this is the same structure which the parties have already defined as corresponding to the "existence means." Equating the two structures—access means and existence means—would ignore the plain functional difference between the two terms: one determines if a data item exists while the other accesses the data item.[22]

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[19] *See Id.* at Col.16:11-12.

[20] *See Id.* at Col.17:12-14.

[21] *See Id.* at Col.24:46-49.

[22] See Ansari Decl., Exhibit F, Dewar Depo., 40:5-19 ("The plaintiff's construction construes that to mean obtaining the data tem, which I think is would be the general understanding of what accessing means. To access a file, you have to have a copy of the file. The defendants construction narrows it down to merely locating the file. I don't think I would consider locating the file to be—certainly locating the file is an important part of accessing it, but I think it misses the notion that's referenced in the plaintiff's construction of acquired true file, make true file local, and request true file.")

3. "Requesting means for requesting a data item at a current location in the system from a remote location in the system, based on the identifier of the data item"

The "requesting means" is present in claims 11, 15-17, 23 and 29 the '791 Patent. The parties agree that the function of the requesting means is to request a data item, at a current location from a remote location, using its identifier. The specification defines a mechanism, the Make True File Local mechanism described at columns 17, lines 37-45, whose functions include requesting a data item, at a current location from a remote location, using its identifier. Thus, the Make True File Local mechanism corresponds to the "requesting means."

The specification confirms that the Make True File Local mechanism corresponds to the "requesting means" in other respects. One of the stated functions of the Make True File Local mechanism is to make a locally accessible copy of a data item using a True Name." Operationally, it identifies sources for the requested data item and "(f)or each source ... realize the True File from the source location (using the Realize True File from Location primitive mechanism), until the True File is realized ... If it is realized, continue with step S294. If no known source can realize the True File, use the Locate Remote File primitive mechanism to attempt to find the True File."[34]

Defendants cite the search function described at column 16, lines 39-61 as the structure corresponding to the "requesting means." However, this is the same structure cited as corresponding to the "remote existence means." Equating the two structures—requesting means and remote existence means—would ignore the plain functional difference between the two terms: one determines if a data item exists while the other requests the data item.[35]

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[33] *See* Ansari Decl., Exhibit E, the '791 Patent, Col.17:12-14.

[34] *See Id.* at Col.17:37-43.

[35] See Ansari Decl., Exhibit F, Dewar Depo., 43:9-16 ("Requesting a data item is

4. "Context means for making and maintaining a context association between at least one contextual name of a data item in the system and the identifier of the data item"

The "context means" limitation is present in claims 12-14, 17, and 29 the '791 Patent. The parties agree that the function of the context means is to make, and maintain, an association between a contextual name of the data item and its identifier. The specification defines at least one mechanism, the Link Path to True Name mechanism described at column 15, line 46 to column 16, line 9, and a data structure, the LDE table described at column 8, lines 18-24, that correspond to the context means.

While the parties agree that one structure corresponding to the "context means" is the LDE table, the defined scope of the "context means" term should be broad enough to include the mechanisms which actually populate the LDE table with the contextual names and the identifiers. In particular, the Link Path to True Name mechanism creates new entry records in the LDE table that link contextual names with a data item's identifier, or True Name." This function is another example of "making and maintaining" a context association between a contextual name and an identifier." Thus, the specification structure corresponding to the "context means" should include the Link Path to True Name mechanism described at column 15, line 46 to column 16, line 9, and LDE table data structure described at column 8, lines 18-24.

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actually getting hold of the data item, and that does correspond to the make true file local function referenced by the plaintiff's proposed construction. The defendant's proposed construction refers to locate remote file, but locating it is not requesting it.")

" *See* Ansari Decl., Exhibit E, the '791 Patent, Col.17:51-52, 17:63-65.

" See Ansari Decl., Exhibit F, Dewar Depo., 44:9-20 ("The defendant's construction points to the data structure that's used to maintain the context association. The plaintiff's proposed construction refers to the process for making those data structure entries. So seeing as we are talking about context means for making and maintaining, I think it's appropriate to include in the construction the notion of making those entries rather than just pointing to the data structure which contains the entries.")

5. **"Contextual name access means for accessing a data item in the system for a given context name of the data item, determining the data identifier associated with the given context name, and invoking said access means to access the data item using the data identifier"**

The "contextual name access means" limitation is present in claims 4, 6-9, 11, 14-17, 21, 23 and 29. The parties agree that the function of the contextual name access means is to access a particular data item by first determining the identifier associated with the context name. As provided in the claim language itself, the contextual name access means performs two functions: (1) obtaining a data identifier associated with a given context name and, (2) invoking the access means to access the data item using the data identifier.

The specification structure that performs the first function – obtaining a data identifier associated with a given context name – is the Get True Name From Path mechanism described at column 15:24-46 and more specifically at column 15, lines 30-35. The parties agree on this point.

The parties disagree on what structure in specification performs the second function – the invoking the access means to access the data item using the data identifier. As discussed above in Section IV.A.2, Plaintiffs assert that the specification defines at least four mechanisms whose function is to access a data item based upon its identifier: the Realize True File mechanism described at column 16, lines 11-37, the Make True File Local mechanism described at columns 17, lines 10-45, and the Request True File mechanism described at column 24, lines 45-62, and their equivalents. Defendants' proposed construction limits the access means to just the search mechanism described at column 16, lines 39-61. Yet the search mechanism is the same structure that the parties already cited as corresponding to the "remote existence means." Equating the two structures—access means and remote existence means—would ignore the plain difference between the two terms: one

determines if a data item exists remotely while the other accesses the data item."[26] Thus, the structure corresponding to the "contextual name access means" should include the Get True Name From Path function described at column 15, lines 30-35 and the at least four mechanisms that access a data item based upon its identifier: the Realize True File mechanism described at column 16, lines 11-37, the Make True File Local mechanism described at columns 17, lines 10-45, and the Request True File mechanism described at column 24, lines 45-62.

B. The terms "Substantially Unique Identifier," "Substantially Unique Value," "Message Digest Function," And "Regions" Are Expressly Defined In the Patent

The specification provides an express definition for four claim terms and phrases: substantially unique identifier, substantially unique value, message digest function, and regions. The Court should not depart from these definitions in construing the terms.

1. A substantially unique identifier should be defined as "an identity for a data item generated by processing all of the data in the data item, and only the data in the data item, through an algorithm"

All of the claims of the '791 patent expressly define the substantially unique identifier as "being determined using and depending on all of the data in the data item and only the data in the data item." The specification repeatedly, and consistently, supports this definition.[27]

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[26] *See Id.* at 46:10-22 ("[D]efendant's proposed construction includes only a small part of get true name from path and locate remote file but we are talking about here is context actual name access means for accessing a data item. So again accessing a data item should include the notion of getting hold of the data item which is reflect in the plaintiff's proposed construction referring to acquire true file. So I think the defendant's proposed construction is incomplete here.")

[27] *See* Ansari Decl., Exhibit E, the '791 Patent, Col.1:13-17; Col.3:6-11 ("In view of the above and other problems with prior art systems, it is therefore desirable to have a mechanism which allows each processor in a multiprocessor system to determine a common and substantially unique identifier for a data item, using only the

The specification further states that the substantially unique identifier (also referred to as a "True Name"[10]) "is computed using a function, MD, which reduces a data block B of arbitrary length to a relatively small, fixed size identifier, the True Name of the data block, such that the True Name of the data block is virtually guaranteed to represent the data block B and only data block B."[11] In prior litigation concerning the '791 Patent, Akamai Technologies, Inc. v. Digital Island, Inc., the District of Massachusetts adopted the same definition of substantially unique identifier, namely "an identity for a data item generated by processing all of the data in the data item, and only the data in the data item, through an algorithm."[12] Although StreamCast was not a party in the prior litigation, the definition already adopted is entitled to substantial weight, if not preclusive effect. Abbott Labs v. Dey, L.P., 110 F. Supp. 2d 667 (N.D. Ill. 2000) (applying issue preclusion to a claim construction by another district court, although also considering whether the previous construction was "plainly wrong"); Nilssen v. Motorola, Inc., 80 F. Supp. 2d 921, 924 n.4 (N.D. Ill. 2000) (prior claim construction was worthy of respect, though not necessarily preclusive effect); TM Patents, L.P. v. Int'l Bus. Machs. Corp., 72 F. Supp. 2d 370 (S.D.N.Y. 1999) (ruling that prior claim construction by a different district court was entitled to preclusive effect).

Aside from the District of Massachusetts' prior construction, Defendants'

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data in the data item and not relying on any sort of context."); Col.32:54-60 ("In operation, data items (for example, files, database records, messages, data segments, data blocks, directories, instances of object classes, and the like) in a DP system employing the present invention are identified by substantially unique identifiers (True Names), the identifiers depending on all of the data in the data items and only on the data in the data items.").

[10] *See Id.* at Col.6:6-10 ("In the following, the terms "True Name," "data identity" and "data identifier" refer to the substantially unique data identifier for a particular data item. The term "True File" refers to the actual file, segment, or data item identified by a True Name.")

[11] *See Id.* at Col.12:55-60.

[12] Ansari Decl., Exhibit G, U.S. District Court Order, p.2.

proposed construction does little to elucidate what is, and is not, a substantially unique identifier. The construction, which defines a substantially unique identifier as a "substantially unique value used as to identify a particular data item," is not only circular, it fails to capture the two key attributes—generated by processing all of the data in the data item and only the data in the data item—that are expressly noted by the claims, specification, and a prior district court order. Thus, "substantially unique identifier" should be construed as "an identity for a data item generated by processing all of the data in the data item, and only the data in the data item, through an algorithm."

2. A substantially unique value should be defined as "a value generated by a message digest function having the following properties: (1) changes to the message digest function input are virtually guaranteed to produce a different output, and (2) it must be computationally difficult to create the same output value by applying the same message digest function to a different input"

The term "substantially unique value" is present in claim 5 of the '280 and claims 14, 18, 30 of the '442 Patent. Each of these dependent claims recites that a function produces the substantially unique value "based on the data comprising the data file." Plaintiffs construe a substantially unique value to mean "a value generated by a message digest function having the following properties: (1) changes to the message digest function input are virtually guaranteed to produce a different output, and (2) it must be computationally difficult to create the same output value by applying the same message digest function to a different input." Defendants construe the term to mean "a value determined based on a set of input data that is virtually guaranteed to be different from the value determined based on a different set of input data."

The parties' constructions are similar in that both recognize changes to the

input data virtually guarantees a different output. Plaintiffs' construction is more complete, however, because Defendants' construction does not incorporate two key attributes of the substantially unique value: first, that it is generated by a message digest function and, second, that it is computationally difficult to create the same output value by applying the same message digest function to a different input. These attributes are important and mandated by the specification.

As stated in the '791 Patent, column 12, line 55 to column 13, line 14, the value which comprises the identifier is "computed using a function, MD." Outputs of that function must have the following two properties: (1) changes to the message digest function input are virtually guaranteed to produce a different output, and (2) it must be computationally difficult to create the same output value by applying the same message digest function to a different input.[9] Plaintiffs' construction reflects these requirements.

3. **A message digest function should be defined as "a function which reduces a data block B of arbitrary length to a relatively small, fixed size identifier, such that the identifier is virtually guaranteed to represent the data block B and only data block B" and should further have the five properties cited in the '791 Patent, Col.12:62-13:9**

The term "message digest function" is present in claims 2, 3, 26, 34, 41, 42, 45, 46, 52-54 of the '280 Patent and claims 15, 27, 32, 41, and 43 of the '442 Patent. The specification mandates a specific definition of message digest function. Specifically, the specification states that a message digest function:

> "[R]educes a data block B of arbitrary length to a relatively small, fixed size identifier, the True Name of the data block, such that the True Name of the data block is virtually guaranteed to represent the data block B and only data block

[9] Ansari Decl., Exhibit E, the '791 Patent, Col.13:3-8.

B. The function MD must have the following properties:

1. The domain of the function MD is the set of all data items. The range of the function MD is the set of True Names.
2. The function MD must take a data item of arbitrary length and reduce it to an integer value in the range 0 to N-1, where N is the cardinality of the set of True Names. That is, for an arbitrary length data block B $0 \leq MD(B) \leq N$.
3. The results of MD(B) must be evenly and randomly distributed over the range of N, in such a way that simple or regular changes to B are virtually guaranteed to produce a different value of MD(B).
4. It must be computationally difficult to find a different value B' such that MD(B)=MD(B').
5. The function MD(B) must be efficiently computed."[34]

Neither party accurately captured the definition of message digest function in the Joint Claim Construction and Pre-Hearing Statement. Plaintiffs now submit that the message digest function, as expressly defined by the specification, is a function which reduces a data block B of arbitrary length to a relatively small, fixed size identifier, such that the identifier is virtually guaranteed to represent the data block B and only data block B and, furthermore, has the five properties cited at column 12, line 62 through column 13, line 9 of the '791 Patent.

4. A set of regions should be defined as "some units of management and control"

The term "set of regions" is present in claim 25 of the '280 Patent. The specification expressly states that a region "is a unit of management and control."[35]

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[34] *See Id.* at Col.12:56-Col.13:9.

[35] *See* Ansari Decl., Exhibit H, the '280 Patent, Col.5:62-63.

The specification also recognizes that a region includes a directory, which is identified by the pathname of the directory.[9] Defendants' construction ignores the basic definition of a region and replaces it with one of its characteristics, namely that it consists of a directory identified by a pathname. On the other hand, Plaintiffs' construction reflects the actual definition provided by the specification itself:

> "In order to implement controls in a file system, file system 116 may be divided into distinct regions, where each region is a unit of management and control. A region consists of a given directory 118 and is identified by the pathname (user defined) of the directory."[10]

In light of the specification language, the Court should construe a set of regions to be some units of management and control or, alternatively, some units of management and control that consist of a directory identified by a pathname.

C. Plaintiffs' Proposed Construction Of "Client Request," "Licensed/Authorized Parties," And "Unlicensed/Unauthorized Parties"

1. The term "client request" should be defined as a request originating from any processor

The term "client request" is present in claim 25, 36-43, 52 and 55 of the '280 Patent. Plaintiffs construe the term client request to be a request originating from any processor. Defendants construe the term client request to be a request by a processor for a file stored at another location. Plaintiffs' construction differs from Defendants' proposed construction in one critical aspect: Defendants' construction requires the client request to be for a file at another location, while Plaintiffs' construction is not so limited.

The specification makes clear that the scope of the invention is not limited to

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[9] *Id.* at Col.5:63-65.

[10] *Id.*

requesting "files." On the contrary, the invention is directed toward identifying, accessing, and managing data items, which includes data formats other than files. Accordingly, the term "client request" should be construed to mean "a request originating from any processor."

2. The terms "licensed/authorized parties" and "unlicensed/unauthorized parties" should be defined as any entity or person that has (does not have) permission to do something

The terms "licensed/authorized" and "unlicensed/unauthorized" are present in all of the claims of the '442 Patent. Plaintiffs construe the terms to mean any entity or person that has (does not have) permission to do something. Defendants construe the terms to mean a user that has been given the attribute "licensed (or "authorized"). Thus, Defendants' construction, while accurately describing an attribute of "licensed" or "authorized," fails to provide a definition.

The specification discloses the use of the patented inventions to determine if particular data items are licensed (authorized) and/or if particular users are licensed (authorized) to have certain data items. The purpose, as noted in the title of the '442 Patent, is to enforce and police the licensing of content. The specification notes that the purpose of licenses is to determine if a user or entity has permission to do something. For example, the "license table (LT) 136 is a table identifying files, which may only be used by licensed users, in a manner independent of their name or location, and the users licensed to use them" and "[e]ach record 150 of the license table 136 records a relationship between a licensable data item and the user licensed to have access to it."[28] The "Track for Licensing Purposes mechanism "ensures that licensed files are not used by unauthorized parties. The True Name provides a safe way to identify licensed material. This service allows proof of possession of specific

[28] *See* Ansari Decl., Exhibit I, the '442 Patent, Col.8:53-56 and 11:66-12:1.

files according to their contents without disclosing their contents."[8] The specification further notes that "[e]nforcing use of valid licenses can be active (for example, by refusing to provide access to a file without authorization) or passive (for example, by creating a report of users who do not have proper authorization)."[9]

In sum, while the terms imply that an entity or user has been given the attribute "licensed (authorized)", they more specifically denote a state, namely whether a user or entity has permission (or not) to do something. Accordingly, Plaintiffs' proposed construction should be adopted.

DATED: March 29, 2007

HENNIGAN, BENNETT & DORMAN LLP

By _____
Hazim H. Ansari
Attorneys for Plaintiffs, ALTNET, INC., BRILLIANT DIGITAL ENTERTAINMENT, INC. and KINETECH, INC.

[8] *See Id.* at Col. 32:43-47.

[9] *See Id.* at Col.32:48-51.

DECLARATION OF HAZIM ANSARI

I, Hazim H. Ansari, state and declare as follows:

1. I am an attorney licensed in the State of California. I am Of Counsel to the law firm of Hennigan, Bennett & Dorman, LLP, counsel of record for Plaintiffs Altnet, Inc., Brilliant Digital Entertainment, Inc. and Kinetech, Inc. ("Plaintiffs") in this case. The facts set forth below are known to me personally. If called upon to testify, I could and would competently testify thereto.

2. It is my understanding that Altnet, Inc. and Brilliant Digital, Inc. executed an agreement to sublicense the '791 Patent and all continuations thereof, with Sharman Networks, owner of the Kazaa Media Desktop which is a software application providing access to one of the largest peer to peer networks in the world, in 2002.

3. Attached hereto as Exhibit A is a true and correct copy of a declaration by Dr. Robert K. Dewar in support of Plaintiffs' opening claim construction brief.

4. Attached hereto as Exhibit B is an accurate list of agreed-to claim terms and their respective constructions pursuant to the parties' Joint Claim Construction and Pre-Hearing Statement.

5. Attached hereto as Exhibit C is an accurate list of claim terms identified as being in dispute pursuant to the parties' Joint Claim Construction and Pre-Hearing Statement.

6. Attached hereto as Exhibit D is a list of claim terms identified in the parties' Joint Claim Construction and Pre-Hearing Statement as disputed, for which Plaintiffs agree to adopt Defendants' proposed constructions.

7. Attached as Exhibit E is a true and correct copy of U.S. Patent No. 5,978,791.

8. Attached hereto as Exhibit F is a true and correct copy of the deposition of Dr. Robert K. Dewar taken on March 23, 2007.

9. Attached hereto as Exhibit G is a true and correct copy of a claim construction order, by the U.S. District Court, District of Massachusetts, in *Akamai, et al. v. Digital Island, Inc.*

10. Attached hereto as Exhibit H is a true and correct copy of U.S. Patent No. 6,415,280.

11. Attached hereto as Exhibit I is a true and correct copy of U.S. Patent No. 6,928,442.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct .

Executed this 29th day of March, 2007 at Los Angeles, California.

Hazim H. Ansari

EXHIBIT A

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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

ALTNET, INC., BRILLIANT DIGITAL ENTERTAINMENT, INC., AND KINETECH, INC., Plaintiffs, vs. STREAMCAST NETWORKS INC., and MICHAEL WEISS Defendants.	Case No. CV-06-5086 SJO (Ex) **DECLARATION OF ROBERT B.K. DEWAR IN SUPPORT OF PLAINTIFFS' CLAIM CONSTRUCTION OPENING BRIEF** **DATE:** May 7, 2007 **TIME:** 10:00 a.m. **CTRM:** 1600 (Spring Street) Hon. S. James Otero **Discovery Cutoff:** July 10, 2007 **Pretrial Conference:** Sept. 24, 2007 **Trial Date:** October 2, 2007

Exhibit A Page 27

I, Robert B.K. Dewar, declare and state as follows:

1. I am a Professor Emeritus of Computer Science at New York University. I make this declaration in support of Plaintiffs' Opening Claim Construction Brief. Specifically, my declaration is intended to provide a tutorial on the technologies involved in U.S. Patent Nos. 5,978,791, 6,415,280, and 6,928,442. I have personal knowledge of the facts and opinions stated below and if called upon to testify thereto, I could and would do so competently.

2. My background in computer science is provided in my *curriculum vitae* as Exhibit 1 to this report. I have summarized my educational and professional background below.

3. I was educated at a preparatory school in England, and attended one year of public school there (St. Pauls). I then emigrated to the United States, where I attended the University of Chicago Lab school, and from there I went on to the University of Chicago, earning SB and PhD degrees in the field of Chemistry. My PhD work in Chemistry involved substantial use of computers, and I took a position as Assistant Professor of Computer Science at Illinois Institute of Technology in 1968 at the age of 22. I received tenure as an Associate Professor two years later. I moved in 1975 to New York University as a Full Professor of computer science, and took the position of Chair of the Department three years later. I have since served as Associate Director of the Courant Institute.

4. In 1994, I founded Ada Core Technologies to commercially exploit the work on Ada at the University, and became CEO and President of this company. I retired from NYU in 2005. My research has centered on compilers and programming languages, as well as operating systems and micro-processor architectures. I have engaged in extensive consulting in the area of operating systems and distributed systems. This included writing several operating systems for Honeywell used in such distributed applications as airline reservations and freight management.

5. I have also authored or co-authored over forty publications in the field of

computer sciences in peer-reviewed journals. My publications are listed in my attached *curriculum vitae* (Exhibit 1).

6. I have received a number of awards including the SIGAda award for outstanding Ada Community Contributions, as well as several other awards, listed in my resume.

7. I have served as an expert witness several times in cases involving copyright and patent law. A complete list is in my resume. One such matter involved a lawsuit between Akamai and Digital Island in District Court in Massachusetts. As part of that case, I provided an expert report and testified at trial regarding the '791 patent.

8. I am familiar with the patents-in-suit, namely U.S. Patents 5,978,791 (the '791 Patent), 6,415,280 (the '280 Patent), and 6,928,442 (the '442 Patent) (collectively the "Patents") and have served as an expert witness on the '791 and '280 Patents in two prior cases.

9. The inventions in this case are concerned with the management of files in a distributed networked computer system. A file is simply a sequence of information, represented as a stream of zero and one bits. The contents of the file may represent a document such as this one, or a picture taken by a digital camera, or a movie, or an audio recording, or indeed any other kind of information that one can imagine. At the level of the file system, each of these cases is simply a sequence of zero and one bits. Various application software is used to interpret the sequence of bits in the intended manner, but the file system does not itself care about the manner in which the information in a given file is to be used.

10. A file system is a collection of files, together with some kind of index that allows files to be located. At a simple level, the index is a sequence of directory entries consisting of: a) a file name used to identify the file and b) a location of the file used to access the file. The directory entry for a file may contain other information such as the length of the file, the last date on which it was accessed, the

owner of the file etc. but for the purposes of this discussion it is the name and location that are significant. A distributed or networked system is one in which several separate computer systems are connected, for example by use of the Internet. Many separate file systems may exist in such a networked system, each with a local file directory.

11. The processes described in these patents are concerned with addressing the problem of locating and accessing files in a networked system containing multiple separate file systems. The fundamental problem to be addressed is how a client of such a system locates and accesses a desired file. The basic process consists of a client presenting a file name, and then a search can be made for a file with a matching name. If a file directory entry with a matching name is found in the local file system, then the corresponding file can be accessed using the location information. If there is no matching file locally, then requests can be made to other file systems in the network, of the form "Do you have a file with the name xxx?" and if the answer is yes, the file can be obtained from the remote file system.

12. This fundamental structure and search procedures are straight forward and form the basis of file systems that have been constructed for many decades. The problem in this procedure is to determine how names for files are assigned. The naming of files in the above scheme is essentially arbitrary. Any file can have any name. This results in great flexibility, but also introduces a fundamental problem. How do we know that the file we are getting is really the one we want?

13. Suppose someone tells us "Hey, someone sent me a great little movie clip called Fire-and-Brimstone-219. You have to get a copy of it." So now I enter some networked system and make a request for a file of this name, and sure enough, some part of the network responds with a positive answer saying "Yes, I have a file called Fire-and-Brimstone-219," so you ask to get a copy of the file. The question is: how do you know that the file you have got hold of is the same as the one that was referred to in the original message? The answer is you don't know, and it may not be,

since any file anywhere could be given this name.

14. As long as file names are assigned arbitrarily, this fundamental problem cannot be avoided. The patented invention(s) change the way a file is named. Instead of using an arbitrary name, we use a name that is computed from the contents of the file by some algorithm, using a "message digest function." The message digest function takes a file of arbitrary length and produces a short fixed length name that depends only on the contents of the file. The patents refer to this short fixed length name as the "True Name."

15. Now if we know the True Name of the file we are looking for, and the file systems are arranged using True Names instead of arbitrarily assigned names, we can be sure that the file we obtain is the one we are looking for.

16. In order for this approach to work, the message digest function must obey two important properties. First, we don't want two different files to have the same True Name, or things will get confused and we may not get the file we are looking for. Mathematically it is not possible to guarantee this property if the True Name has a short fixed length. There is some small probability that two files *could* have the same name. However, algorithms, such as MD5, have the property that the chance of this happening is so small that it can be ignored. Yes, when we make a request for the file we want there may be an extremely small chance that we get the wrong file, but this is not a possibility worth worrying about. As long as we can keep the probability of a clash low enough, we can proceed as though the naming system provided unique names, even though strictly they are not mathematically unique. That's what the phrase *substantially unique* captures in the patent. It's not absolutely unique, but it's good enough.

17. Second, given that it is mathematically possible to have two files map to the same True Name, there do exist other sequences of bits that would give the same True Name. While can discount the possibility of this happening by accident by making the probability small enough, how do we account for a deliberate subversion

attempt? Suppose someone wants to deliberately construct such a substitute file. We want that to be practically impossible. It turns out that message digest functions such as MD5 have the property that we need. It is computationally infeasible to find such substitute files. Yes, theoretically it could be done if you are willing to set a fast computer running for many years looking, but in practice, it is just too difficult to do.

18. As long as we use True Names computed using a message digest function that satisfies these properties, the use of True Names in a networked file system solves the problem of ensuring that we get the file we are looking for. Now, when we are informed about a particular file, the computed True Name, not the arbitrarily assigned name, is used. We therefore can search the system using this True Name, and if we get a match we know we have the desired file.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

/S/ Robert B.K. Dewar
Robert B.K. Dewar

Digital signature executed on March 29, 2007
at 6:54 p.m., British Summer Time,
10 Station Road, Esholt, Yorkshire, England

EXHIBIT B

EXHIBIT B

AGREED-TO CLAIM CONSTRUCTIONS

U.S. Patent No. 5,978,791 ('791 patent)

Claim Terms	*Agreed Construction*
data item	A sequence of bits, including the contents of a file, a portion of a file, a page in memory, and object in an object-oriented program, a digital message, a digital scanned image, a part of a video or audio signal, or any other entity which can be represented by a sequence of bits.
location	An individual processor or storage element in a data processing system.
storage location	A location capable of storing one or more data items.
data storage device	A device capable of storing one or more data items.

U.S. Patent No. 6,415,280 ('280 patent)

Claim Terms	*Agreed Construction*
Distribute	To make data available for data processing at more than one location.
data file	One or more data segments.
data identifier	the substantially unique value used as to identify a particular data item.
function of the data	A process that operates on input data.

Exhibit B Page 33

Claim Terms	Agreed Construction
providing the particular data file	Making a particular file available.
contents of the data file	The sequence of bits contained in a data file.
MD5	The message digest function commonly called MD5 as defined by RFC 1321, including any updates.
Hash	The result of a hash function.

U.S. Patent No. 6,928,442 ('442 patent)

Claim Terms	Agreed Construction
name for a data file	An identifier given to a data file.
copy of file	A file containing the same data as another file.
accounting information	Information about a file.
TCP/IP communications protocol	Computer network communication protocols based on the Transmission Control Protocol (TCP) AND THE Internet Protocol (IP).
MD4	The message digest function commonly called MD4 as defined by RFC 1320, including any updates.
MD5	The message digest function commonly called MD5 as defined by RFC 1321, including any updates.
SHA	The message digest function commonly called SHA or "Secure Hashing

Exhibit B Page 34

Claim Terms	Agreed Construction
	Algorithm" as defined by Federal Information Processing Standards Publication 180, including any updates.
hash function	A function that produces a fixed number of bits as an output based on an input that can have a much larger size.
computer-readable media	A storage device or memory location capable of being accessed by a computer.

EXHIBIT C

EXHIBIT C

JOINT CLAIM CONSTRUCTION AND PRE-HEARING STATEMENT

CLAIM TERMS IN DISPUTE

Claim Term	Plaintiffs' Proposed Construction	Defendants' Proposed Construction
Data processing system	Any computer or combination of interconnected (directly or indirectly) computers containing at least data storage and processing features for storing and processing data.	One or more processors capable of processing and storing data items, where these components are connected to each other at least some of the time.
Substantially unique identifier	An identity for a data item generated by processing all of the data in the data item, and only the data in the data item, through an algorithm.	The substantially unique value used as to identify a particular data item.
Remote location	Any location other than a particular location in a data processing system.	For a particular processor in a data processing system, the memory and storage of that processor are "local" and all other locations are "remote locations."
Advertising a data item	Publishing the availability of, or making known the availability of, a data item.	A remote location providing a list of its data items to another location.

Claim Term	Plaintiffs' Proposed Construction	Defendants' Proposed Construction
Data segment	A fixed sequence or number of bytes	A fixed sequence of bytes having as an important property its size, i.e., the number of bytes in the sequence
Data block	The sequence of bits in a data item.	A data item of any length
Identity means for determining, for any of a plurality of data items present in the system, a substantially unique identifier	The "identity means" includes the Calculate True Name Process described at Col.12:54-60, or the database structure described at Col. 8:19-26 and their equivalent.	This refers to the means (plus equivalents) referred to at '791, col. 12, line 54 – col. 13, line 14.
Existence means for determining whether a particular data item is present in the system, by examining the identifiers of the plurality of data items.	The search function described at Col. 15:54-56 and Col. 16:25-45 and its equivalent.	This refers to the means (plus equivalents) referred to at '791, col. 15, lines 54-56; col. 16, lines 39-61.
Local existence means for determining	The realize True File from Location function described at Col.16:10-38 and its	This refers to the means (plus equivalents) referred to at '791, col. 15, lines 54-56.

Claim Term	Plaintiffs' Proposed Construction	Defendants' Proposed Construction
whether an instance of a particular data item is present at a particular location in the system, based on the identifier of the data item	equivalent.	
Data associating means for making and maintaining, for a data item in the system, an association between the data item and the identifier of the data item	The Assimilate Data Item function described at Col.14:40-Col.15:4 and its equivalent.	This refers to the means (plus equivalents) referred to at '791, col. 14, lines 61-64.
Access means for accessing a particular data item using the identifier of the data item	The Realize True File function described at Col.16:11-37, Acquire True File function described at Col.25:25-45, Make True File Local function described at Col.17:10-45, and Request True File function described at Col.24:45-62, and their equivalent.	This refers to the means (plus equivalents) referred to at '791, col. 15, lines 54-56; col. 16, lines 39-61.

Claim Term	Plaintiffs' Proposed Construction	Defendants' Proposed Construction
Assimilation means for assimilating a new data item into the system, said assimilation means invoking said identity means to determine the identifier of the new data item and invoking said data associating means to associate the new data item with its identifier.	The Assimilate Data Item function described at Col.14:40-Col.15:4 its equivalent.	This refers to the means (plus equivalents) referred to at '791, col. 14, lines 51-64.
Remote existence means for determining whether a data item is present at a remote location in the system from a current location in the system, based on the identifier of the data item	The Locate Remote File function described at Col.16:38-Col.17:9 and its equivalent.	This refers to the means (plus equivalents) referred to at '791, col. 16, lines 39-61.

Claim Term	Plaintiffs' Proposed Construction	Defendants' Proposed Construction
Requesting means for requesting a data item at a current location in the system from a remote location in the system, based on the identifier of the data item	The Make True File Local function described at Col.17:10-45 and its equivalent.	This refers to the means (plus equivalents) referred to at '791, col. 16, lines 39-61.
Context means for making and maintaining a context association between at least one contextual name of a data item in the system and the identifier of the data item	The Get True Name From Path function described at Col.15:24-46 and Link Path to True Name function described at Col.15:46-Col.16:9 and their equivalent.	This refers to the means (plus equivalents) referred to at '791, col. 8, lines 18-24.
Referencing means for obtaining the identifier of a data item in the system given a contextual name for the data item, using said	The Get True Name From Path function described at Col.15:24-46 and its equivalent.	This refers to the means (plus equivalents) referred to at '791, col. 15, lines 30-35.

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Claim Term	Plaintiffs' Proposed Construction	Defendants' Proposed Construction
context association		
Contextual name access means for accessing a data item in the system for a given context name of the data item, determining the data identifier associated with the given context name, and invoking said access means to access the data item using the data identifier	The Get True Name From Path function described at Col.15:24-46 and access means, including the Realize True File function described at Col.16:11-37, Acquire True File function described at Col.25:25-45, Make True File Local function described at Col.17:10-45, and Request True File function described at Col.24:45-62 and their equivalent.	This refers to the means (plus equivalents) referred to at '791, col. 15, lines 30-35; col. 16, lines 39-61
Means for advertising a data item from a location in the system to at least one other location in the system	The Publish Region function described at Col.30:20-40 and its equivalent	This refers to the means (plus equivalents) referred to at '791, col. 30, lines 21-23
Means for verifying the integrity of a	The Verify True File function described at	This refers to the means (plus equivalents) referred to at

Claim Term	Plaintiffs' Proposed Construction	Defendants' Proposed Construction
data item obtained from the requesting means in response to providing the requesting with a particular data identifier, to confirm that the data item obtained from the requesting means is the same data item as the data item requested	Col.31:21-50 and its equivalent	'791, col. 3, lines 22-50
Network of servers	A set of two or more processors interconnected directly or indirectly	A kind of data processing system where multiple processors are connected to each other at least some of the time
Set of regions	Some number of management and control units	A number of directories, each of which is identified by a pathname ('791, col. 5, lines 62-64)
Client request	A request originating from any processor	A request by a processor for a file stored at another location
Licensed/authorized	Any entity or person that has	A user that has been given the

Claim Term	Plaintiffs' Proposed Construction	Defendants' Proposed Construction
parties and unlicensed/ unauthorized parties	(does not have) permission to do something	attribute "licensed (or "authorized")
Message digest function	A mathematical or algorithmic routine that takes a set of data items (or "message") of any length as an input and produces a fixed number of bits as output.	A function that produces a value of a specified length based on an input that can be arbitrarily large
Substantially unique value	A value generated by a message digest function having the following properties: (1) changes to the message digest function input are virtually guaranteed to produce a different output, and (2) it must be computationally difficult to create the same output value by applying the same message digest function to a different input.	A value determined based on a set of input data that is virtually guaranteed to be different from the value determined based on a different set of input data

EXHIBIT D

EXHIBIT D

AGREED CONSTRUCTIONS PREVIOUSLY IDENTIFIED AS DISPUTED

1. "*Existence means for determining whether a particular data item is present in the system, by examining the identifiers of the plurality of data items.*" The "existence means" term is present in independent claim 1 and, consequently, in dependent claims 2-29 of the '791 Patent. The stated function of the existence means is to determine "whether a particular data item is present in the system by examining the identifiers of the plurality of data items." The parties agree that the existence means corresponds to the search functions described at column 15, lines 54-56 and at column 16, lines 39-61, and its equivalents.

2. "*Local existence means for determining whether an instance of a particular data item is present at a particular location in the system, based on the identifier of the data item.*" The "local existence means" term is present in dependent claims 2-11, 15-17, and 21-29 of the '791 Patent. The stated function of the local existence means is to determine "whether an instance of a particular data item is present at a particular location in the system, based on the identifier of the data item." The parties agree that the local existence means corresponds to the search function described at column 15, lines 54-56, and its equivalents.

3. "*Data associating means for making and maintaining, for a data item in the system, an association between the data item and the identifier of the data item.*" The "data associating" term is present in dependent claims 4, 6-9, 11, 14, 21, 23, and 29 of the '791 Patent. The stated function of the data associating means is to make and maintain, for a data item in the system, an association between the data item and the identifier of the data item. The specification expressly defines a mechanism, the Assimilate Data Item mechanism, whose function

includes the making and maintaining of an association between the data item and the identifier of the data item. The parties agree that the data associating means corresponds to the portion of the Assimilate Data Item mechanism at column 14, lines 61-64, and its equivalents.

4. "*Assimilation means for assimilating a new data item into the system, said assimilation means invoking said identity means to determine the identifier of the new data item and invoking said data associating means to associate the new data item with its identifier.*" The "assimilation means" term is present in dependent claim 6 of the '791 Patent. The stated function of the assimilation means is to assimilate a new data item into the system. The specification expressly defines a mechanism, the Assimilate Data Item mechanism, whose function is to do precisely that: to assimilate a new data item. The parties agree that the assimilation means corresponds to the portion of the Assimilate Data Item mechanism at column 14, lines 51-64, and its equivalents.

5. "*Remote existence means for determining whether a data item is present at a remote location in the system from a current location in the system, based on the identifier of the data item.*" The "remote existence means" term is present in dependent claim 10 of the '791 Patent. The stated function of the remote existence means is to determine whether a data item is present at a remote location based on the data item's identifier. The specification expressly defines a mechanism, the Locate Remote File mechanism, whose function is to do precisely that: to locate a remote data item based on the True Name, or identifier, of the data item. The parties agree that the remote existence means corresponds to the portion of the Locate Remote File mechanism at column 16, lines 39-61, and its equivalents.

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6. "*Referencing means for obtaining the identifier of a data item in the system given a contextual name for the data item, using said context association.*" The "referencing means" term is present in dependent claims 12-14 of the '791 Patent. The stated function of the referencing means is to obtain a data item's identifier given its contextual name. The specification expressly defines a mechanism, the Get True Name From Path mechanism, whose function includes obtain a data item's identifier given its contextual name. The parties agree that the referencing means corresponds to the portion of the Get True Name From Path mechanism at column 15, lines 30-35, and its equivalents.

7. "*Means for advertising a data item from a location in the system to at least one other location in the system.*" The "means for advertising" term is present in dependent claim 21 of the '791 Patent. The stated function of the means for advertising is to advertise, or make known, a data item to other locations in the system. The specification expressly defines a mechanism, the Publish Region mechanism, whose function includes advertising a data item to other locations in the system. The parties agree that the means for advertising corresponds to the portion of the Publish Region mechanism at column 30, lines 21-23, and its equivalents.

8. "Means for verifying the integrity of a data item obtained from the requesting means in response to providing the requesting with a particular data identifier, to confirm that the data item obtained from the requesting means is the same data item as the data item requested." The "means for verifying" term is present in dependent claim 23. The stated function of the identity means is to verify the integrity of a data item to confirm that the obtained data item is the same as the requested data item. The specification clearly defines a specific mechanism that

performs this function: the Verify True File mechanism, which can be found at column 31, lines 21-50. "This mechanism is used to verify that the data item in the True File registry ... is indeed the correct data item given its True Name." ('791 Patent, Col.31:21-24.) Operationally, the mechanism calculates the data item's identifier, using the Calculate True Name mechanism, and then compares the calculated identifier with the given identifier. (*See Id.* at Col.31:42-45.) If there is a discrepancy, then the verification process fails.

In the Joint Claim Construction and Pre-Hearing Statement, Defendants appear to cite the specification at column 3, lines 22-50 as the corresponding structure for this claim term. However, a review of this portion of the specification does not reveal any information relevant to the "means for verifying" claim term or functionality. Further, during the deposition of Plaintiffs' expert, Dr. Robert Dewar, Defendants' counsel represented that, in fact, it was likely Defendants intended to reference column 31, lines 22-50. (Deposition of Dr. Dewar ("Dewar Depo."), 48:7-10.) The parties are therefore in agreement regarding the construction of this claim term.

9. "*Data processing system*." The "data processing" term is present in claims 1-39 and 41-48 of the '791 Patent. The parties agree that the term data processing system means "one or more processors capable of processing and storing data items, where these components are connected to each other at least some of the time."

10. "*Remote Location*." The "remote location" term is present in claims 10, 11, 15-17, 21, 23, 29, 39, and 41-44 of the '791 Patent. The parties agree that the term remote location means "for a particular processor in a data processing system, the memory and storage of that processor are 'local' and all other locations are remote locations."

11. "*Data segment*." The "data segment" term is present in claims 19, 27, 29, and 48 of the '791 Patent. The parties agree that the

term data segment means "a fixed sequence of bytes having as an important property its size, i.e., the number of bytes in the sequence."

12. "*Data block*." The "data segment" term is present in claims 29 and 48 of the '791 Patent. The parties agree that the term data block means "a data item of any length."

13. "*Network of servers*." The "network of servers" term is present in claims 1-35 and 54 of the '280 Patent and claim 9 of the '442 Patent. The parties agree that the term network of servers means "a kind of data processing system where multiple processors are connected to each other at least some of the time."