UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

SYCAMORE IP HOLDINGS LLC,

Plaintiff,

v.

AT&T INC.;
AT&T CORP.;
AT&T SERVICES, INC.;
AND TELEPORT COMMUNICATIONS OF AMERICA, LLC,

Defendants.

No. 2:16-cv-588

Jury Trial Demanded

COMPLAINT

Plaintiff Sycamore IP Holdings LLC ("Sycamore"), as for its complaint of patent infringement in this matter, hereby alleges as follows:

NATURE OF THE ACTION

1. This is an action for infringement of United States Patent No. 6,952,405 ("the Sycamore Patent") under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*, seeking damages and other relief under 35 U.S.C. § 281 *et seq.*

THE PARTIES

2. Sycamore is a Delaware limited liability company with its principal place of business at 2700 Plumas Street #120, Reno, Nevada 89509.

3. On information and belief, defendant AT&T Inc. is a Delaware corporation with its principal place of business at 208 S. Akard Street, Dallas, Texas 75202. On information and belief, AT&T Inc. may be served with process via its registered agent CT Corporation Systems, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

4. On information and belief, defendant AT&T Corp. is a New York corporation with its principal place of business at One AT&T Way, Bedminster, New Jersey 07291. On information and belief, AT&T Corp. may be served with process via its registered agent CT Corporation Systems, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

5. On information and belief, defendant AT&T Services, Inc. is a Delaware corporation with its principal place of business at 208 S. Akard Street, Dallas, Texas 75202. On information and belief, AT&T Services, Inc. may be served with process via its registered agent CT Corporation Systems, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

6. On information and belief, defendant Teleport Communications of America, LLC is a Delaware corporation with its principal place of business at One AT&T Way, Bedminister, New Jersey 07921. On information and belief, Teleport Communications of America, LLC may be served with process via its registered agent CT Corporation Systems, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

7. On information and belief, AT&T Corp.; AT&T Services, Inc.; and Teleport Communications of America, LLC are wholly-owned subsidiaries of AT&T, Inc. On information and belief, AT&T Inc. directs or controls the actions of AT&T Corp.; AT&T Services, Inc.; AT&T Communications of New York, Inc.; and Teleport Communications of America, LLC. AT&T, Inc.; AT&T Corp.; AT&T Services, Inc.; and Teleport Communications of America, LLC are collectively referred to herein as “AT&T” or “Defendants.”

8. On information and belief, Defendants do business as AT&T Business Solutions.

9. On information and belief, Defendants and/or their subsidiaries or affiliates also maintain numerous offices in Texas and this judicial district, including: Austin, Dallas, Fort Worth, San Antonio, Abilene, Amarillo, Beaumont-Port Arthur, Brownsville-Harlingen, Corpus

Christi, El Paso, Huntsville, Killeen-Temple, Laredo, Longview, Lubbock, McAllen-Edinburg-Mission, Midland, Nacogdoches, Odessa, Sherman-Denison, Tyler, Victoria, Waco and Wichita Falls. *See* https://www.corp.att.com/businessfiber/index.html#map.

JURISDICTION AND VENUE

10. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

11. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the action concerns the infringement of a United States patent.

12. On information and belief, Defendants are subject to this Court's specific and general personal jurisdiction because they conduct substantial business in Texas and this judicial district, directly and/or through intermediaries, including: (i) committing at least a portion of the acts of infringements alleged herein in Texas and this judicial district, and (ii) regularly doing or soliciting business in Texas and in this judicial district, engaging in other persistent courses of conduct in this judicial district including maintaining continuous and systematic contacts in Texas and in this judicial district, availing themselves of the privileges of doing business in Texas and in this judicial district, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this judicial district. On information and belief, this Court also has personal jurisdiction over AT&T Inc. and AT&T Services, Inc. because their principal places of business are located in the State of Texas. On information and belief, this Court has personal jurisdiction over AT&T, Inc., AT&T Corp., AT&T Services, Inc., and Teleport Communications America, LLC because they are foreign entities registered to do business in the State of Texas, and thus they have purposely availed themselves of the privileges and benefits of the laws of Texas.

13. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391 and 1400(b) because, among other reasons, Defendants are subject to personal jurisdiction in this judicial district, and Defendants have committed and continue to commit acts of patent infringement in this judicial district. For example, on information and belief, Defendants have made, used, offered to sell and/or sold infringing products and/or services in this judicial district, and/or imported infringing products and/or services into this judicial district.

THE PATENT-IN-SUIT

14. Sycamore is the owner by assignment of the Sycamore Patent, entitled "Coding Scheme Using a Transaction Indicator for Signal Transmission in Optical Communications Networks," which the U.S. Patent & Trademark Office duly issued on October 4, 2005. The Sycamore Patent is valid and enforceable, and was duly issued in full compliance with Title 35 of the United States Code. A true and correct copy of the Sycamore Patent is attached hereto as Exhibit 1.

FACTUAL BACKGROUND

15. Dr. Danny Tsang and Dr. Murat Azizoglu are the named inventors of the Sycamore Patent.

16. The Sycamore Patent was originally assigned to Sycamore Networks, Inc. ("Sycamore Networks") of Chelmsford, Massachusetts. Sycamore Networks was once a pioneer company for making advanced optical networking equipment.

17. In February 1998, Sycamore Networks was founded by a group of data networking industry veterans to develop sophisticated optical networking equipment for the then emerging fiber-optics data networks industry. Sycamore Networks launched its first products in March 1999.

18. Sycamore Networks went public on October 22, 1999 and became a Wall Street sensation as it "closed with the biggest market value ever achieved by an Internet-related company in its first day of trading" and posted "the third-best opening result ever." http://news.cnet.com/Sycamore-shares-soar-in-stunning-debut/2100-1033_3-231775.html; http://money.cnn.com/1999/10/22/news/sycamore. Sycamore Networks reached a market capitalization of about $14.4 billion after its first public trading day, and later reached a market capitalization of about $45 billion in March 2000.

19. Dr. Azizoglu joined Sycamore Networks in 1999 as a Senior Scientist and was soon promoted to Chief Network Architect. After obtaining his Ph.D. in Electrical Engineering from the Massachusetts Institute of Technology ("MIT") in 1991, Dr. Azizoglu served as an Assistant Professor at the Department of Electrical Engineering and Computer Science of George Washington University from 1991 to 1994. He then joined the Department of Electrical Engineering of the University of Washington, where he became a tenured Associate Professor.

20. Dr. Danny Tsang worked at Sycamore Networks from 2000 to 2001. Dr. Tsang is currently a professor at the Hong Kong University of Science and Technology and a fellow of the Institute of Electrical and Electronics Engineers ("IEEE"). Dr. Tsang obtained his Ph.D. in Electrical Engineering from the University of Pennsylvania in 1989.

21. Around the late 1990s, the data networking industry faced a challenging and technically complex problem of how to properly and efficiently map data traffic coming from a variety of data networks (*e.g.*, Gigabit Ethernet, Fibre Channel, FICON, and ESCON) onto an outgoing synchronous optical network (*e.g.*, SONET), in order to transport incoming data traffic across the outgoing optical network. An important aspect of this problem concerned the timely

and transparent transport of both control information and data information contained within the incoming traffic across the outgoing network without incurring excessive traffic overhead.

22. In 2000, drawing on and extending Dr. Azizoglu's earlier work on data transport networks, Drs. Tsang and Azizoglu conceived and designed an elegant new transcoding scheme that takes advantage of some line-code properties of certain data networks such as Gigabit Ethernet, Fibre Channel, FICON, and ESCON. This new transcoding scheme designed by Drs. Tsang and Azizoglu not only addressed the above mentioned technical problem faced by the data networking industry, but also provided the benefit of reducing the overall data rate of the incoming traffic. This new transcoding scheme was designed to, and does, improve the way data is transmitted over optical communications networks.

23. Sycamore Networks filed a provisional patent application for this invention on December 5, 2000, and later filed a formal patent application on February 27, 2001, which would ultimately issue as the Sycamore Patent on October 4, 2005.

DEFENDANTS' INFRINGING PRODUCTS AND SERVICES

24. On information and belief, Defendants make, use, offer to sell and/or sell within the United States and/or import into the United States products and/or services that:

a. map signals (such as Gigabit Ethernet signals, FICON signals, ESCON signals, or Fibre Channel signals) in accordance with the Transparent Generic Framing Procedure ("GFP-T") as standardized in ITU-T G.7041;

b. map Gigabit Ethernet signals onto ODU0 signals as standardized in ITU-T G.709 OTN;

c. map 10 Gigabit Fibre Channel signals onto ODU2e signals as standardized in ITU-T G.709 OTN; and/or

d. map 40 Gigabit Ethernet signals onto ODU3 signals as standardized in ITU-T G.709 OTN

(collectively, "Defendants' Infringing Products and/or Services").

25. On information and belief, Defendants' Infringing Products and/or Services include at least Defendants' Optical Private Line service, Wave Private Line, Optical Ring Service, Ethernet Private Line, Metropolitan Area Ring services, Multi-service Optical Network (MON) Ring Service, Dedicated Ethernet, Dedicated SONET Ring Service, SMARTRing service, ACCU-Ring, Ultravailable Network Service, LightGate SONET Ring service, Wavelength Channel service, WaveMAN, FibreMAN, GigaMAN Service, EPLS-MAN service, EPLS-WAN service, and any use of the mappings from the above paragraph in Defendants' own systems or networks.

26. On information and belief, Defendants make, use, offer to sell and/or sell Defendants' Infringing Products and/or Services in the State of Texas and in this judicial district and/or import Defendants' Infringing Products and/or Services into the State of Texas and into this judicial district.

COUNT I
INFRINGEMENT OF THE SYCAMORE PATENT

27. Sycamore repeats and re-alleges the allegations above as if fully set forth herein.

28. On information and belief, Defendants have been and are currently directly infringing one or more claims of the Sycamore Patent, either literally or under the doctrine of equivalents, by making, using, offering to sell and/or selling within the United States and/or importing into the United States, without authority, Defendants' Infringing Products or Services.

29. Defendants' direct infringement includes, without limitation practicing the method of at least claim 1, including by Defendants' making, using, operating and/or testing

Defendants' Infringing Products and/or Services. Claim 1 is discussed herein only as a representative example of the infringed claims.

30. Defendants' Infringing Products and/or Services perform a mapping according to the table reproduced in Figure 1 below ("the Infringing Mapping"):

Input client characters	Flag bit	64-bit (8-octet) field							
All data	0	D1	D2	D3	D4	D5	D6	D7	D8
7 data, 1 control	1	0 aaa C1	D1	D2	D3	D4	D5	D6	D7
6 data, 2 control	1	1 aaa C1	0 bbb C2	D1	D2	D3	D4	D5	D6
5 data, 3 control	1	1 aaa C1	1 bbb C2	0 ccc C3	D1	D2	D3	D4	D5
4 data, 4 control	1	1 aaa C1	1 bbb C2	1 ccc C3	0 ddd C4	D1	D2	D3	D4
3 data, 5 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	0 eee C5	D1	D2	D3
2 data, 6 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	0 fff C6	D1	D2
1 data, 7 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	0 ggg C7	D1
8 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	1 ggg C7	0 hhh C8

– Leading bit in a control octet (LCC) = 1 if there are more control octets and = 0 if this payload octet contains the last control octet in that block.
– aaa = 3-bit representation of the first control code's original position (first control code locator).
– bbb = 3-bit representation of the second control code's original position (second control code locator).
...
– hhh = 3-bit representation of the eighth control code's original position (eighth control code locator).
– Ci = 4-bit representation of the i-th control code (control code indicator).
– Di = 8-bit representation of the i-th data value in order of transmission.

Figure 1

See ITU-T G.7041 at Figure 8-2; *see also* ITU-T G.709 at Figure B.5.

31. The Infringing Mapping is "[a] method for transporting multi-word information groups containing data words and control characters over a communications link" as set forth in the preamble of claim 1 of the Sycamore Patent. The multi-word information groups containing data words and control characters that are transported over a communications link are represented as "Input client characters" (highlighted in yellow in Figure 2 below). The multi-word information groups can consist of 8 data words, as shown on the first line of Figure 2, 8

control words, as shown on the last line of Figure 2, or a mixture of any number of 8 data words and control characters, as shown on the second through eighth lines of Figure 2.

Input client characters	Flag bit	64-bit (8-octet) field							
All data	0	D1	D2	D3	D4	D5	D6	D7	D8
7 data, 1 control	1	0 aaa C1	D1	D2	D3	D4	D5	D6	D7
6 data, 2 control	1	1 aaa C1	0 bbb C2	D1	D2	D3	D4	D5	D6
5 data, 3 control	1	1 aaa C1	1 bbb C2	0 ccc C3	D1	D2	D3	D4	D5
4 data, 4 control	1	1 aaa C1	1 bbb C2	1 ccc C3	0 ddd C4	D1	D2	D3	D4
3 data, 5 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	0 eee C5	D1	D2	D3
2 data, 6 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	0 fff C6	D1	D2
1 data, 7 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	0 ggg C7	D1
8 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	1 ggg C7	0 hhh C8

– Leading bit in a control octet (LCC) = 1 if there are more control octets and = 0 if this payload octet contains the last control octet in that block.
– aaa = 3-bit representation of the first control code's original position (first control code locator).
– bbb = 3-bit representation of the second control code's original position (second control code locator).
...
– hhh = 3-bit representation of the eighth control code's original position (eighth control code locator).
– Ci = 4-bit representation of the i-th control code (control code indicator).
– Di = 8-bit representation of the i-th data value in order of transmission.

Figure 2

32. The Infringing Mapping comprises the step of "determining whether each of said information groups includes control codes" as set forth in element (a) of claim 1 of the Sycamore Patent. The Infringing Mapping determines whether the "Input client characters" are "All data" (highlighted in yellow in Figure 3 below) or whether they include "control" characters (the remaining lines boxed in red in Figure 3 below).

Input client characters	Flag bit	64-bit (8-octet) field							
All data	0	D1	D2	D3	D4	D5	D6	D7	D8
7 data, 1 control	1	0 aaa C1	D1	D2	D3	D4	D5	D6	D7
6 data, 2 control	1	1 aaa C1	0 bbb C2	D1	D2	D3	D4	D5	D6
5 data, 3 control	1	1 aaa C1	1 bbb C2	0 ccc C3	D1	D2	D3	D4	D5
4 data, 4 control	1	1 aaa C1	1 bbb C2	1 ccc C3	0 ddd C4	D1	D2	D3	D4
3 data, 5 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	0 eee C5	D1	D2	D3
2 data, 6 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	0 fff C6	D1	D2
1 data, 7 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	0 ggg C7	D1
8 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	1 ggg C7	0 hhh C8

– Leading bit in a control octet (LCC) = 1 if there are more control octets and = 0 if this payload octet contains the last control octet in that block.
– aaa = 3-bit representation of the first control code's original position (first control code locator).
– bbb = 3-bit representation of the second control code's original position (second control code locator).
...
– hhh = 3-bit representation of the eighth control code's original position (eighth control code locator).
– Ci = 4-bit representation of the i-th control code (control code indicator).
– Di = 8-bit representation of the i-th data value in order of transmission.

Figure 3

33. The Infringing Mapping comprises the step of "for each information group that does not include control characters, setting a data indicator and combining said data indicator with the data words of the information group to generate an encoded information stream including said data indicator and the data words" as set forth in element (b) of claim 1 of the Sycamore Patent. As shown on the first line of Figure 4 below, for each set of "Input client characters" that comprises "All data," the Infringing Mapping sets a data indicator by setting the "Flag bit" to '0' (highlighted in yellow) and combines that data indicator with the data words (D1, D2, … D8 — boxed in red) of the information group to generate an encoded information stream including said data indicator and the data words.

Input client characters	Flag bit	64-bit (8-octet) field							
All data	0	D1	D2	D3	D4	D5	D6	D7	D8
7 data, 1 control	1	0 aaa C1	D1	D2	D3	D4	D5	D6	D7
6 data, 2 control	1	1 aaa C1	0 bbb C2	D1	D2	D3	D4	D5	D6
5 data, 3 control	1	1 aaa C1	1 bbb C2	0 ccc C3	D1	D2	D3	D4	D5
4 data, 4 control	1	1 aaa C1	1 bbb C2	1 ccc C3	0 ddd C4	D1	D2	D3	D4
3 data, 5 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	0 eee C5	D1	D2	D3
2 data, 6 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	0 fff C6	D1	D2
1 data, 7 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	0 ggg C7	D1
8 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	1 ggg C7	0 hhh C8

– Leading bit in a control octet (LCC) = 1 if there are more control octets and = 0 if this payload octet contains the last control octet in that block.
– aaa = 3-bit representation of the first control code's original position (first control code locator).
– bbb = 3-bit representation of the second control code's original position (second control code locator).
...
– hhh = 3-bit representation of the eighth control code's original position (eighth control code locator).
– Ci = 4-bit representation of the i-th control code (control code indicator).
– Di = 8-bit representation of the i-th data value in order of transmission.

Figure 4

34. The Infringing Mapping comprises the step of "for each information group that includes one or more control characters, generating an encoded information stream" by the step of "encoding the control characters to control codes" as set forth in element (c)(i) of claim 1 of the Sycamore Patent. As shown in Figure 5 below, for each set of "Input client characters" that includes "control" characters, the Infringing Mapping encodes the control characters to control codes (C1, C2, ... C8 — each a "4-bit representation of the i-th control code (control code indicator)" — highlighted in yellow in Figure 5 below).

Input client characters	Flag bit	64-bit (8-octet) field							
All data	0	D1	D2	D3	D4	D5	D6	D7	D8
7 data, 1 control	1	0 aaa C1	D1	D2	D3	D4	D5	D6	D7
6 data, 2 control	1	1 aaa C1	0 bbb C2	D1	D2	D3	D4	D5	D6
5 data, 3 control	1	1 aaa C1	1 bbb C2	0 ccc C3	D1	D2	D3	D4	D5
4 data, 4 control	1	1 aaa C1	1 bbb C2	1 ccc C3	0 ddd C4	D1	D2	D3	D4
3 data, 5 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	0 eee C5	D1	D2	D3
2 data, 6 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	0 fff C6	D1	D2
1 data, 7 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	0 ggg C7	D1
8 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	1 ggg C7	0 hhh C8

– Leading bit in a control octet (LCC) = 1 if there are more control octets and = 0 if this payload octet contains the last control octet in that block.
– aaa = 3-bit representation of the first control code's original position (first control code locator).
– bbb = 3-bit representation of the second control code's original position (second control code locator).
...
– hhh = 3-bit representation of the eighth control code's original position (eighth control code locator).
– Ci = 4-bit representation of the i-th control code (control code indicator).
– Di = 8-bit representation of the i-th data value in order of transmission.

Figure 5

35. The Infringing Mapping comprises the step of "for each information group that includes one or more control characters, generating an encoded information stream" by the step of "generating a transition indicator based on the number of control characters for indicating the occurrence of a final control code in the encoded information stream" as set forth in element (c)(ii) of claim 1 of the Sycamore Patent. For each set of "Input client characters" that includes "control" characters, the Infringing Mapping generates a transition indicator (boxed in red in Figure 6 below) based on the number of control characters for indicating the occurrence of a final control code in the encoded information stream ("Leading bit in a control octet (LCC) … = 0 if this payload octet contains the last control octet in that block.").

Input client characters	Flag bit	64-bit (8-octet) field							
All data	0	D1	D2	D3	D4	D5	D6	D7	D8
7 data, 1 control	1	0 aaa C1	D1	D2	D3	D4	D5	D6	D7
6 data, 2 control	1	1 aaa C1	0 bbb C2	D1	D2	D3	D4	D5	D6
5 data, 3 control	1	1 aaa C1	1 bbb C2	0 ccc C3	D1	D2	D3	D4	D5
4 data, 4 control	1	1 aaa C1	1 bbb C2	1 ccc C3	0 ddd C4	D1	D2	D3	D4
3 data, 5 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	0 eee C5	D1	D2	D3
2 data, 6 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	0 fff C6	D1	D2
1 data, 7 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	0 ggg C7	D1
8 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	1 ggg C7	0 hhh C8

– Leading bit in a control octet (LCC) = 1 if there are more control octets and = 0 if this payload octet contains the last control octet in that block.
– aaa = 3-bit representation of the first control code's original position (first control code locator).
– bbb = 3-bit representation of the second control code's original position (second control code locator).
...
– hhh = 3-bit representation of the eighth control code's original position (eighth control code locator).
– Ci = 4-bit representation of the i-th control code (control code indicator).
– Di = 8-bit representation of the i-th data value in order of transmission.

Figure 6

36. The Infringing Mapping comprises the step of "for each information group that includes one or more control characters, generating an encoded information stream" by the step of "generating a location pointer for each of the control codes representative of the sequential position within the information group for each of the corresponding control characters" as set forth in element (c)(iii) of claim 1 of the Sycamore Patent. For each set of "Input client characters" that includes "control" characters, the Infringing Mapping generates a location pointer (boxed in red in Figure 7 below) for each of the control codes representative of the sequential position within the information group for each of the corresponding control characters ("aaa = 3-bit representation of the first control code's original position (first control code locator). bbb = 3-bit representation of the second control code's original position (second control

code locator). … [sic] hhh= 3-bit representation of the eighth control code's original position (eighth control code locator).").

Input client characters	Flag bit	64-bit (8-octet) field							
All data	0	D1	D2	D3	D4	D5	D6	D7	D8
7 data, 1 control	1	0 aaa C1	D1	D2	D3	D4	D5	D6	D7
6 data, 2 control	1	1 aaa C1	0 bbb C2	D1	D2	D3	D4	D5	D6
5 data, 3 control	1	1 aaa C1	1 bbb C2	0 ccc C3	D1	D2	D3	D4	D5
4 data, 4 control	1	1 aaa C1	1 bbb C2	1 ccc C3	0 ddd C4	D1	D2	D3	D4
3 data, 5 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	0 eee C5	D1	D2	D3
2 data, 6 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	0 fff C6	D1	D2
1 data, 7 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	0 ggg C7	D1
8 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	1 ggg C7	0 hhh C8

– Leading bit in a control octet (LCC) = 1 if there are more control octets and = 0 if this payload octet contains the last control octet in that block.
– aaa = 3-bit representation of the first control code's original position (first control code locator).
– bbb = 3-bit representation of the second control code's original position (second control code locator).
– ...
– hhh = 3-bit representation of the eighth control code's original position (eighth control code locator).
– Ci = 4-bit representation of the i-th control code (control code indicator).
– Di = 8-bit representation of the i-th data value in order of transmission.

Figure 7

37. The Infringing Mapping comprises the step of "for each information group that includes one or more control characters, generating an encoded information stream" by the step of "combining the control codes, the data words, said location pointers, and said transition indicator for each information group to form the encoded information stream" as set forth in element (c)(iv) of claim 1 of the Sycamore Patent. For each set of "Input client characters" that includes "control" characters, the Infringing Mapping combines the control codes (highlighted in yellow in Figure 5 above), the data words (highlighted in yellow in Figure 8 below), said location pointers (boxed in red in Figure 7 above) and said transition indicator (boxed in red in Figure 6 above) to form the encoded information stream (boxed in red in Figure 8 below).

Input client characters	Flag bit	64-bit (8-octet) field							
All data	0	D1	D2	D3	D4	D5	D6	D7	D8
7 data, 1 control	1	0 aaa C1	D1	D2	D3	D4	D5	D6	D7
6 data, 2 control	1	1 aaa C1	0 bbb C2	D1	D2	D3	D4	D5	D6
5 data, 3 control	1	1 aaa C1	1 bbb C2	0 ccc C3	D1	D2	D3	D4	D5
4 data, 4 control	1	1 aaa C1	1 bbb C2	1 ccc C3	0 ddd C4	D1	D2	D3	D4
3 data, 5 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	0 eee C5	D1	D2	D3
2 data, 6 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	0 fff C6	D1	D2
1 data, 7 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	0 ggg C7	D1
8 control	1	1 aaa C1	1 bbb C2	1 ccc C3	1 ddd C4	1 eee C5	1 fff C6	1 ggg C7	0 hhh C8

– Leading bit in a control octet (LCC) = 1 if there are more control octets and = 0 if this payload octet contains the last control octet in that block.
– aaa = 3-bit representation of the first control code's original position (first control code locator).
– bbb = 3-bit representation of the second control code's original position (second control code locator).
...
– hhh = 3-bit representation of the eighth control code's original position (eighth control code locator).
– Ci = 4-bit representation of the i-th control code (control code indicator).
– Di = 8-bit representation of the i-th data value in order of transmission.

Figure 8

38. Defendants further contribute to and/or induce infringement of one or more claims of the Sycamore Patent. The direct infringement induced and contributed to by Defendants includes at least the operation of Defendants' Infringing Products and/or Services by end users. Defendants know that these users are infringing the Sycamore Patent at least by virtue of the filing of this Complaint and Defendants have specific intent to encourage these users to infringe the Sycamore Patent by practicing all of the claim limitations of one or more claims of the Sycamore Patent. Defendants induce these users to operate Defendants' Infringing Products and/or Services knowing that these acts constitute infringement of the Sycamore Patent and with specific intent to encourage those acts and encourage infringement.

39. Upon gaining knowledge of the Sycamore Patent, it was, or became, apparent to Defendants that the making, use, offering to sell, selling and/or importing of Defendants'

Infringing Products and/or Services resulted in infringement of the Sycamore Patent. On information and belief, Defendants have (and/or will) continued to engage in activities constituting inducement of infringement, notwithstanding their knowledge (or willful blindness thereto) that the activities they were inducing result in infringement of the Sycamore Patent. For example, Defendants are inducing infringement of the Sycamore Patent by, among other things, knowingly and with intent, actively encouraging their customers, suppliers, users, agents and/or affiliates to make, use, offer to sell, sell and/or import Defendants' Infringing Products and/or Services in a manner that constitutes infringement of one or more claims of the Sycamore Patent, knowing that such activities infringe the Sycamore Patent.

40. Defendants encourage direct infringement of the Sycamore Patent at least by widely publicizing Defendants' Infringing Products and/or Services.

41. By inducing Defendants' customers', suppliers', users', agents' and/or affiliates' use of the apparatuses and methods claimed in the Sycamore Patent, including through their use of Defendants' Infringing Products and/or Services, Defendants have been and are now indirectly infringing under 35 U.S.C. § 271(b) one or more claims of the Sycamore Patent, either literally or under the doctrine of equivalents.

42. On information and belief, upon receiving knowledge of the Sycamore Patent (at least since the filing date of this Complaint) Defendants are contributing to the infringement of the Sycamore Patent by, among other things, knowingly and with intent, actively encouraging their customers, suppliers, agents, users and/or affiliates to make, use, offer to sell, sell and/or import Defendants' Infringing Products and/or Services in a manner that constitutes infringement of one or more claims of the Sycamore Patent. There are no substantial uses of Defendants' Infringing Products and/or Services that do not infringe one or more claims of the Sycamore

Patent. For example, each of Defendants' Infringing Products and/or Services is an optical communications data transport product/service that operates at such a data transmission speed that it necessarily performs the Infringing Mapping, and such products/services have no substantial noninfringing uses.

43. By contributing to Defendants' customers', suppliers', agents', users' and/or affiliates' use of the apparatuses and methods claimed in the Sycamore Patent, including through their use of Defendants' Infringing Products and/or Services, Defendants have been and are now indirectly infringing under 35 U.S.C. § 271(c) one or more claims of the Sycamore Patent, either literally or under the doctrine of equivalents.

44. As a result of Defendants' unlawful infringement of the Sycamore Patent, Sycamore has suffered and will continue to suffer damage. Sycamore is entitled to recover from Defendants the damages adequate to compensate for such infringement, which have yet to be determined.

PRAYER FOR RELIEF

WHEREFORE, Sycamore respectfully requests that this Court enter judgment in its favor as follows:

a. holding that Defendants have directly infringed, literally and/or under the doctrine of equivalents, one or more claims of the Sycamore Patent;

b. holding that Defendants have indirectly infringed, literally and/or under the doctrine of equivalents, one or more claims of the Sycamore Patent;

c. awarding to Sycamore the compensatory damages to which it is entitled under 35 U.S.C. § 284 for Defendants' past infringement and any continuing or future infringement, including a reasonable royalty;

d. declaring this to be an exceptional case and awarding Sycamore attorneys' fees under 35 U.S.C. § 285;

e. awarding Sycamore costs and expenses in this action;

f. awarding Sycamore pre- and post-judgment interest on its damages; and

g. awarding Sycamore such other and further relief in law or in equity as this Court deems just and proper.

JURY DEMAND

Sycamore, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any and all issues so triable by right.

Dated: June 6, 2016

Respectfully submitted,

/s/ Otis Carroll

Otis Carroll (Texas Bar No 03895700)
nancy@icklaw.com
Deborah Race (Texas Bar No. 16448700)
drace@icklaw.com
IRELAND CARROLL & KELLEY, P.C.
6101 South Broadway, Suite 500
Tyler, Texas 75703
t: (903) 561-1600
f: (903) 581-1071

Counsel for Plaintiff
Sycamore IP Holdings LLC

Eric P. Berger
Michael S. DeVincenzo
Mark S. Raskin
Timothy J. Rousseau
Robert A. Whitman
MISHCON DE REYA NEW YORK LLP
2 Park Avenue, 20th Floor
New York, New York 10016
t: (212) 612-3270
f: (212) 612-3297
eric.berger@mishcon.com
michael.devincenzo@mishcon.com
mark.raskin@mishcon.com
tim.rousseau@mishcon.com
robert.whitman@mishcon.com