

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION**

CHEETAH OMNI LLC,
a Texas limited liability company,

Plaintiff,

v.

AT&T, INC.,
a Delaware corporation, and
AT&T SERVICES, INC.,
a Delaware Corporation,

Defendants.

Case No. 3:17-cv-1993

**COMPLAINT FOR PATENT INFRINGEMENT AND
DEMAND FOR JURY TRIAL**

Plaintiff Cheetah Omni LLC alleges as follows:

The Parties

1. Plaintiff Cheetah Omni LLC (“Cheetah Omni”) is a Texas limited liability company (Filing No. 800108661).

2. Defendant AT&T, Inc. (AT&T) is a Delaware corporation, having its principal place of business at 208 S. Akard St., Dallas, Texas 75202. AT&T may be served with process through its registered agent for service of process CT Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas 75201.

3. Defendant AT&T Services, Inc. (AT&T Services) is a Delaware corporation, having its principal place of business at 208 S. Akard St., Dallas, Texas 75202. AT&T Services may be served with process through its registered agent for service of process CT Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas 75201.

4. AT&T Services, Inc. tests, commercializes, and markets Internet services to residential and commercial customers. Upon information and belief, AT&T directs and controls AT&T Services, in that: (i) AT&T Services has common offices with AT&T, at 208 S. Akard St., Dallas, Texas 75202; (ii) AT&T and AT&T Services have common senior management, *e.g.*, John M. Donovan is both President of AT&T Services and Chief Strategy Officer and Group President of AT&T Technology and Operations; and (iii) AT&T supervises the marketing and operations of AT&T Services. AT&T participates with AT&T Services as a joint enterprise in the sale, advertising, and marketing of the “AT&T Fiber” equipment and services accused in this Complaint of infringing the Patent-in-Suit, *see, e.g.*, the page on AT&T’s website at the following URL: <https://www.att.com/internet/fiber.html> (last visited 7/14/2017).

Jurisdiction and Venue

5. This is a complaint for patent infringement under 35 U.S.C. §§ 101, *et seq.* The Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338.

6. The court has personal jurisdiction over AT&T because AT&T’s principal place of business is in this judicial district.

7. The court has personal jurisdiction over AT&T Services because AT&T Service’s principal place of business is in this judicial district.

8. Venue is proper in this district pursuant to 28 U.S.C. §§1391(a)(1) and 1400(b) because both AT&T and AT&T Services have regular and established places of business in this judicial district and they have committed acts of infringement in this judicial district.

The Patent-in-Suit

9. On April 21, 2009, US Patent No. 7,522,836 (“the ‘836 patent”) (Exhibit A) titled “Optical Logic Gate Based Optical Router,” was duly and lawfully issued to Mohammed N. Islam, a tenured Professor in the Electrical and Computer Engineering Department in the University of Michigan College of Engineering.

10. Plaintiff Cheetah Omni has been, and is, the owner by assignment of the ‘836 patent throughout the period of defendants’ infringing acts.

Background Facts

11. AT&T promotes “AT&T Fiber” as its “fastest Internet”:

Get the ultimate online experience with our fastest Internet

Internet powered by AT&T Fiber means faster downloads, less buffering, and more bandwidth with over 99% reliability all on the nation’s largest fiber network.

(<https://www.att.com/internet/fiber.html>; last visited 7/14/2017.)

12. AT&T lauds “AT&T Fiber” on its web site as follows:

AT&T Fiber

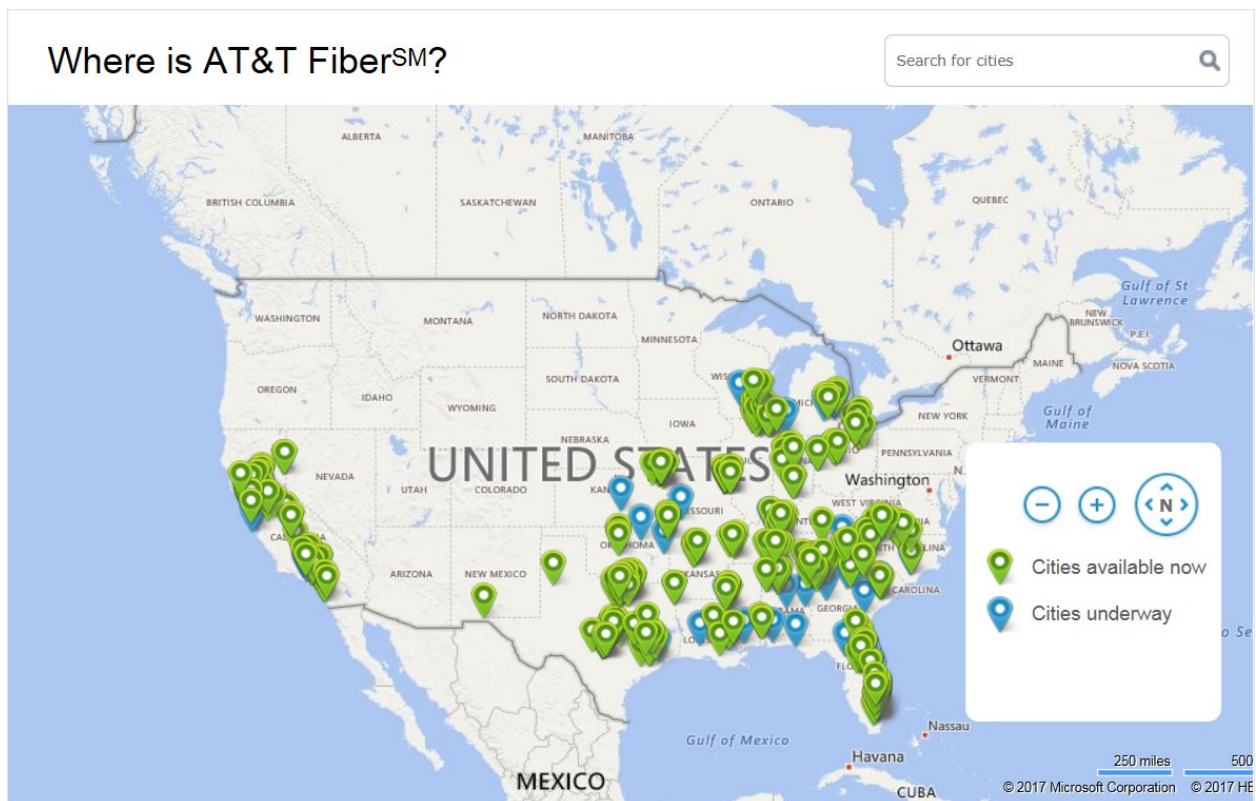
AT&T will offer an ultra-fast connection to more homes, apartments and small business locations. Ultra-fast internet speeds let you instantly access the latest online movies, music, games and more. It can also improve your experience when connecting to the cloud and videoconferencing, and gives you the speed you need to power all of your devices.

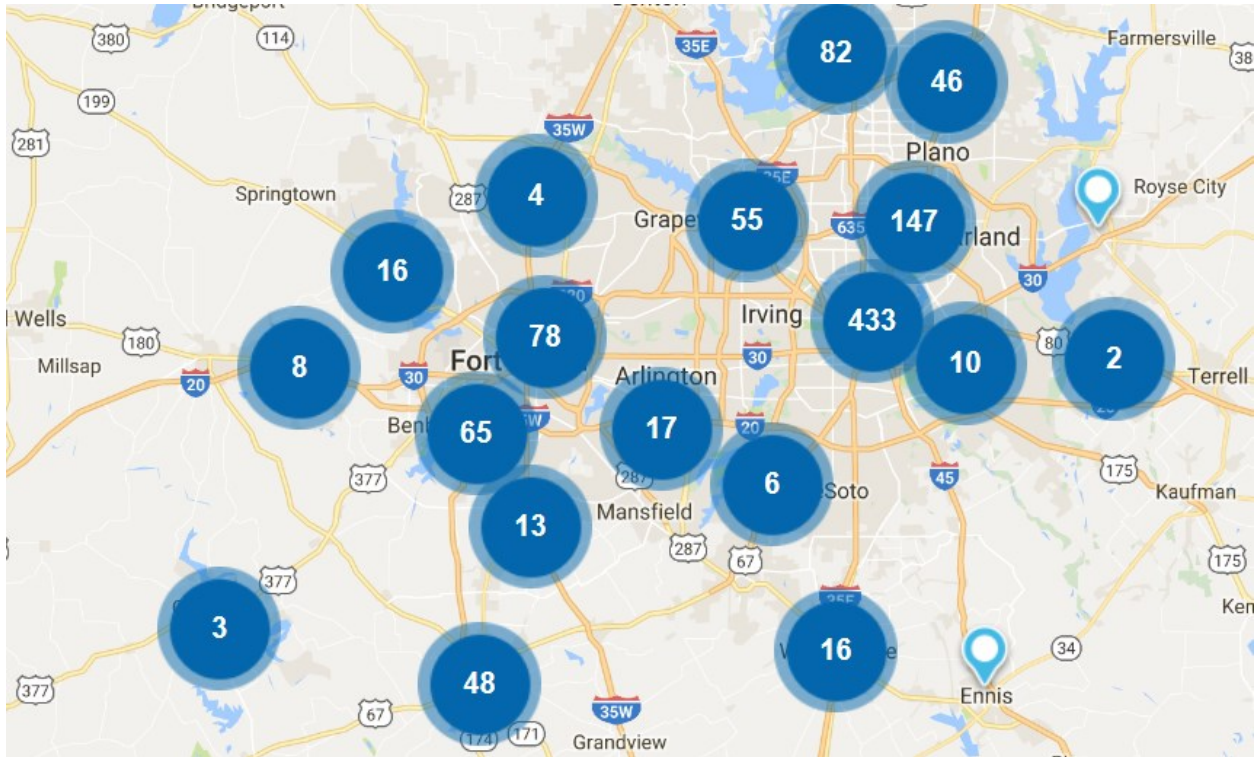
We’ve already launched our ultra-fast internet service in parts of 54 of the nation’s largest metro areas, with plans to expand in parts of 21 more areas – at least 75 metros in total.

The fiber-enhanced speeds will open up new possibilities for technology innovators and businesses, as well as consumers who want faster speeds for surfing, shopping, gaming, social networking, business transactions, and more.

(<http://about.att.com/mediakit/fiber>; visited July 11, 2017.)

13. “AT&T Fiber” has been installed, and is scheduled for further installation, throughout the United States, including the Northern District of Texas, as shown by the following graphics from the site <https://www.att.com/shop/internet/gigapower/coverage-map.html> (last visited July 14, 2017):





14. In AT&T’s 2016 Annual Report to its shareholders, CEO Randall Stephenson describes the importance of “AT&T Fiber”:

- An ultra-fast 100% fiber network marketed to nearly 4 million consumer locations across 46 metros nationwide.
- High-speed fiber connections to more than 1.2 million U.S. business locations.
- We also expanded our AT&T FiberSM service and now serve nearly 4 million locations across 46 U.S. markets.

(AT&T 2016 Annual Report, pp. 3 and 5.)

15. In 2015, AT&T merged with DIRECTV and the merger agreement obligated AT&T to provide fiber service to 12.5 million locations by mid-2019.

16. On July 1, 2015, at 2:00 PM EDT, AT&T’s corporate patent counsel, Geoffrey L. Sutcliffe and Sam Dworetsky, and Dr. Mohammed N. Islam, inventor of the ‘836 patent, conducted a one-hour and 10-minute telephone conference discussing the applicability of the ‘836 patent to

the “AT&T Fiber” program, and AT&T’s possible acquisition of, or licensing under, the ‘836 patent (and other telecommunication patents). *See* Exhibit B (E-mail thread in reverse chronological order).

17. Dr. Islam followed up on the forenoon of July 6, 2015, by an e-mail requesting a face-to-face meeting with Messrs. Sutcliffe and Dworetsky to continue discussions on the applicability of the ‘836 patent to AT&T Fiber. *Id.*

18. In the early afternoon of July 6, 2015, Mr. Sutcliffe sent an e-mail abruptly ending discussions with Dr. Islam, without explanation. *Id.*

19. On May 26, 2017, Dr. Islam wrote to Mr. Scott M. Frank, President and CEO of AT&T Intellectual Property Inc., to renew a dialogue with AT&T on the importance of the ‘836 patent to the expanding AT&T Fiber program, namely:

Dear Mr. Frank:

I write to renew a dialogue with AT&T regarding the AT&T Fiber program.

In mid-2015, I was in dialogue with AT&T’s corporate patent counsel, Geoffrey Sutcliffe and Sam Dworetsky, regarding Cheetah Omni’s U.S. Patent No. 7,522,836, titled “Optical Logic Gate Based Optical Router” (“the ‘836 patent”). A copy of the ‘836 patent is enclosed for convenience of reference. After an initial expression of interest in the ‘836 patent by these gentlemen the dialogue ended for reasons not explained to me.

More recently, the AT&T Fiber program appears to have become of growing importance to AT&T based on reports contained in AT&T’s 2016 Annual Report and several technology blogs, including articles by Mr. John Donovan of the AT&T Technology and Operations business unit. This includes AT&T’s commitment in the DIRECTV merger agreement to provide fiber service to 12.5 million locations by mid-2019.

Given AT&T’s growing interest in fiber service, I believe AT&T might be interested in acquiring an interest in the ‘836 patent.

I would welcome an opportunity to further explain the advantages of the ‘836 patent and any interest AT&T may have. AT&T could benefit by having strong intellectual property coverage in this growing area over its competitors. Please take this letter as a request to renew a dialogue with AT&T on this matter.

(Exhibit C – Letter of 5/26/2017 from M.N. Islam to S.M. Frank.)

20. On June 6, 2017, Mr. Geoffrey Sutcliffe, Assistant Vice President and Senior Legal Counsel of AT&T Legal – Intellectual Property, responded to Dr. Islam’s May 26th letter by declining to renew the dialogue on the ‘836 patent. (Exhibit D – Letter of 6/6/2017 from G. Sutcliffe to M.N. Islam.)

Infringement of the ‘836 Patent

21. Plaintiff Cheetah Omni reaffirms and realleges the allegations contained in paragraphs 1-20 as if fully stated herein.

22. AT&T and AT&T Services have infringed and are infringing the ‘836 patent either directly, by inducing others to infringe, and/or contributorily, by making using, offering for sale, selling, and/or importing in the United States certain fiber optic communications equipment and associated services. AT&T and AT&T Services refer to the infringing equipment and services as “AT&T Fiber.”

23. Based on publicly available information, AT&T and AT&T Services’ manufacture, use, sale, offer for sale and importation into the United States of the accused “AT&T Fiber” infringes at least claims 1, 5, 7-9, 12, 14-16 and 19 of the ‘836 patent. Cheetah Omni reserves the right to assert additional claims of the ‘836 patent after a reasonable opportunity for case investigation and discovery.

24. AT&T and AT&T Services’ infringement is described further below with respect to exemplary claim 15. The analysis below is based on publicly available information.

25. Claim 15 recites: “*An optical processing system comprising: an input interface comprising at least one or more light sources capable of generating a multiple wavelength optical*

signal;” On information and belief, the “AT&T Fiber” equipment includes an optical processing system comprising at least one or more light sources capable of generating a multiple wavelength optical signal, as confirmed by the article on AT&T’s Open ROADM project: http://0201.nccdn.net/1_2/000/000/173/842/Open-ROADM-Models-whitepaper---An-Example-v1-0.pdf. See Exhibit E.

26. Claim 15 further recites: “*a switching element coupled to the input interface, the switching element operable to receive the multiple wavelength optical signal and to generate a switching element optical output signal*” On information and belief, the “AT&T Fiber” equipment includes a switching element coupled to the input interface, the switching element operable to receive the multiple wavelength optical signal and to generate a switching element optical output signal, as confirmed by the article on AT&T’s Open ROADM project: <http://www.netmanias.com/en/post/blog/10408/gigabit-internet-sdn-nfv/at-t-s-cord-the-ultimate-architecture-born-after-decades-of-innovation-in-the-communications-network>. See Exhibit F.

27. Claim 15 further recites: “*an optical signal separator operable to separate the multiple wavelength optical signal into one or more optical signal wavelengths;*” On information and belief, the “AT&T Fiber” equipment includes an optical signal separator operable to separate the multiple wavelength optical signal into one or more optical signal wavelengths: <https://www.fiberoptics4sale.com/blogs/archive-posts/95046534-what-is-wavelength-selective-switch-wss> See Exhibit G.

28. Claim 15 further recites: “*a plurality of semiconductor devices located on a single semiconductor substrate, the plurality of semiconductor devices capable of performing an optical switching operation on at least one of the optical signal wavelengths.*” On information and belief, the “AT&T Fiber” equipment includes a plurality of semiconductor devices located on a single

semiconductor substrate, the plurality of semiconductor devices being capable of performing an optical switching operation on at least one of the optical signal wavelengths: <https://www.fiberoptics4sale.com/blogs/archive-posts/95046534-what-is-wavelength-selective-switch-wss>. See Exhibit G.

29. Claim 15 further recites: “*a controller operable to generate a control signal that affects the optical switching operation performed by one or more of the plurality of semiconductor devices.*” On information and belief, the AT&T Fiber equipment includes a controller operable to generate a control signal that affects the optical switching operation performed by one or more of the plurality of semiconductor devices, as confirmed by the article on AT&T’s Open ROADM project: <http://opencord.org/wp-content/uploads/2016/10/BBWF-CORD.pdf>. See Exhibit H.

30. Claim 15 further recites: “*a plurality of optical fibers forming at least a portion of a star configuration.*” On information and belief, the AT&T Fiber equipment includes a plurality of optical fibers forming at least a portion of a star configuration,” as shown by Exhibit I (www.gpon.com) describing a star configuration of optical fibers within the Gigabyte Passive Optical Network (GPON). GPON components and method like those used by AT&T were found to infringe the ‘836 patent in E.D. Tex. Civil Action No. 6:09-cv-00260.

31. Claim 15 further recites: “*a plurality of output interfaces coupled to respective ones or more of the plurality of optical fibers, wherein the star configuration is capable of communicating the switching element optical output signal from the switching element to at least one of the plurality of output interfaces.*” Upon information and belief, the AT&T Fiber equipment includes a plurality of output interfaces coupled to respective ones or more of the plurality of optical fibers, wherein the star configuration is capable of communicating the switching element optical output signal from the switching element to at least one of the plurality of output interfaces,

as shown by the article on AT&T's Open ROADM project: http://0201.nccdn.net/1_2/000/000/173/842/Open-ROADM-Models-whitepaper---An-Example-v1-0.pdf. See Exhibit E.

32. Claim 15 further recites: “*wherein the switching element optical output signal comprises, at least in part, frames comprising one or more framing bits, a first packet label, and a second packet label allowing for error checking at a destination.*” Upon information and belief, in the AT&T Fiber equipment the switching element optical output signal comprises, at least in part, frames comprising one or more framing bits, a first packet label, and a second packet label allowing for error checking at a destination, as shown by Exhibit J (<https://www.fiberoptictel.com/gpon-framing-structuredownlink-frame/>) describing the GPON downstream frame format.

33. Claim 15 further recites: “*wherein the at least one of the plurality of output interfaces comprises a synchronized light source operable to generate a modulated light signal based at least in part on a portion of the switching element optical output signal.*” Upon information and belief, in the AT&T Fiber equipment at least one of the plurality of output interfaces comprises a synchronized light source operable to generate a modulated light signal based at least in part on a portion of the switching element optical output signal, as shown in Exhibit I (<http://www.gpon.com>) describing the switching element optical output signal at 1490 nm and the modulated light signal at 1310 nm.

34. Claim 15 further recites: “*wherein the modulated light signal is at a different wavelength than the switching element optical output signal, and wherein the synchronized light source operates to substantially avoid interference between the modulated light signal and another modulated light signal generated by another one of the plurality of output interfaces.*” Upon

information and belief, in the AT&T Fiber equipment the modulated light signal is at a different wavelength than the switching element optical output signal, and wherein the synchronized light source operates to substantially avoid interference between the modulated light signal and another modulated light signal generated by another one of the plurality of output interfaces, as shown Exhibit K (<http://www.gpon.com/how-gpon-works>) describing the operation of a synchronized light source to avoid interference in a GPON environment.

35. AT&T's and AT&T Services' infringement, direct and indirect, has damaged Cheetah Omni, both pecuniarily and irreparably, and such damage will continue unless AT&T and AT&T Services are enjoined from further infringing conduct.

Willful Infringement

36. Cheetah repeats and realleges the allegations of paragraphs 1-35 as if fully set forth herein.

37. AT&T has had notice of the claims of the '836 patent since at least July 1, 2015.

38. AT&T is guilty of willful patent infringement based on its bad-faith, deliberate and conscious disregard of the '836 patent.

Demand for Relief

WHEREFORE, Cheetah Omni requests entry of judgment against AT&T and AT&T Services as follows:

- A. Finding AT&T and AT&T Services liable for infringement of the '836 Patent and that the infringement has been willful;
- B. Awarding Cheetah Omni damages under 35 U.S.C. § 271 adequate to compensate for AT&T's and AT&T Services' infringement;
- C. Preliminarily and permanently enjoining AT&T and AT&T Services, together with any officers, agents, servants, employees, and attorneys, and such other persons in active concert of participation with them, who receive actual notice of the Order, from further infringement of the '836 Patent;
- D. A declaration this case is exceptional within the meaning of 35 U.S.C. § 285 and awarding Cheetah Omni its reasonable attorney fees, costs, and disbursements;
- E. Awarding Cheetah Omni interest in all damages awarded; and
- F. Granting Cheetah Omni all other relief to which it is entitled.

Demand for Jury Trial

Cheetah Omni demands trial by jury for all issues so triable.

Dated: July 28, 2017

Respectfully submitted,

/s/ Robert C. J. Tuttle

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