IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS

INTELLECTUAL VENTURES II LLC,

Plaintiff,

Civil Action No. 1:13cv118

v.

CENTURYLINK, INC.

(f/k/a CENTURYTEL, INC.),

CENTURYTEL BROADBAND SERVICES, LLC

(d/b/a CENTURYLINK),

 ${\bf QWEST\ COMMUNICATIONS\ INTERNATIONAL, INC.,}$

QWEST CORP.

(d/b/a CENTURYLINK QC),

EMBARQ CORP.

(d/b/a CENTURYLINK, INC.),

and

SAVVIS, INC.

(a/k/a SAVVIS COMMUNICATIONS CORP.,

a/k/a SAVVIS)

Defendants.

JURY TRIAL DEMANDED

COMPLAINT

Plaintiff Intellectual Ventures II LLC ("Intellectual Ventures II") hereby files this

Complaint against Defendants CenturyLink, Inc. (f/k/a CenturyTel, Inc.), CenturyTel Broadband

Services, LLC (d/b/a CenturyLink), Qwest Corp. (d/b/a CenturyLink QC), Qwest

Communications International, Inc., Embarq Corp. (d/b/a CenturyLink Inc.), and Savvis, Inc.

(a/k/a Savvis Communication Corp.), and alleges as follows:

PARTIES

- 1. Intellectual Ventures II is a Delaware limited liability company with its principal place of business in Bellevue, Washington.
- 2. Upon information and belief, CenturyLink, Inc. is a Louisiana limited liability company having its principal place of business at 100 CenturyLink Drive, Monroe, LA 71203. CenturyLink, Inc. was formerly known as CenturyTel, Inc.
- 3. Upon information and belief, CenturyTel Broadband Services, LLC ("CenturyTel") is a Louisiana limited liability company having its principal place of business at 100 CenturyLink Drive, Monroe, LA 71203. Upon information and belief, CenturyTel is a wholly-owned subsidiary of CenturyLink, Inc.
- 4. Upon information and belief, Qwest Communications International, Inc. is a Delaware corporation having its principal place of business at 100 Centurylink Drive, Monroe, LA 71203. Upon information and belief, Qwest Communications International, Inc., is a whollyowned subsidiary of CenturyLink, Inc. On information and belief, CenturyLink merged with Qwest Communications International, Inc. on April 1, 2011.
- 5. Upon information and belief, Qwest Corp. (d/b/a CenturyLink QC) is a Colorado corporation having its principal place of business at 100 Centurylink Drive, Monroe, LA 71203. Upon information and belief, Qwest Corp. is a wholly-owned subsidiary of Qwest Communications International, Inc., which is a wholly-owned subsidiary of CenturyLink, Inc.

- 6. Upon information and belief, Embarq Corp. (d/b/a CenturyLink, Inc.) is a Delaware corporation having its principal place of business at 100 CenturyLink Drive, Monroe, Louisiana 71203. Upon information and belief, Embarq Communications, Inc. is a whollyowned subsidiary of CenturyLink, Inc. Upon information and belief, CenturyLink, Inc. acquired Embarq Corp. on July 1, 2009.
- 7. Upon information and belief, Savvis, Inc. (a/k/a Savvis Communications Corp., a/k/a SAVVIS) is a Delaware corporation having its principal place of business at 100 CenturyLink Drive, Monroe, Louisiana 71203. Upon information and belief, Savvis, Inc. is a wholly-owned subsidiary of CenturyLink, Inc. Upon information and belief, CenturyLink, Inc. acquired Savvis on July 15, 2011.

NATURE OF THE ACTION

8. This is a civil action for the infringement of United States Patent No. 6,424,636, United States Patent No. 6,246,695, United States Patent No. 5,790,548, United States Patent No. 6,101,182, United States Patent No. 5,534,912, United States Patent No. 7,817,532, United States Patent No. 7,649,928, United States Patent No. 8,045,601, United States Patent No. 7,860,175, United States Patent No. 6,498,808, United States Patent No. 6,667,991, United States Patent No. 6,654,410, United States Patent No. 7,508,876, United States Patent No. 6,567,473, United States Patent No. 6,798,735, United States Patent No. 6,266,348, United States Patent No. 7,272,171, United States Patent No. 7,826,545, and United States Patent No. 6,647,068 (collectively, the "Patents-in-Suit") under the Patent Laws of the United States, 35 U.S.C. § 1 et seq.

JURISDICTION AND VENUE

- 9. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, including 35 U.S.C. § 271 *et seq*.
- 10. Upon information and belief, CenturyLink Inc. directs and/or controls

 CenturyLink Inc.'s subsidiaries such that CenturyLink Inc.'s subsidiaries constitute alter egos and/or agents of CenturyLink Inc. Upon information and belief, CenturyLink Inc. wholly owns each of CenturyLink Inc.'s subsidiaries, each of CenturyLink Inc.'s subsidiaries is financially dependent on CenturyLink Inc., CenturyLink Inc. shares common officers and/or directors with each of CenturyLink Inc.'s subsidiaries, and/or CenturyLink Inc. exercises control over the marketing and operational policies of each of CenturyLink 's subsidiaries. CenturyLink and its subsidiaries (hereinafter "CenturyLink") participate in the sale, advertising, marketing, and use of DSL equipment and services, including within the State of Texas and this district, which infringe the Patents-in-Suit.
- 11. This Court has personal jurisdiction over Defendants because Defendants have committed acts of infringement in violation of 35 U.S.C. § 271 in the State of Texas and this district by selling and using infringing products and systems and by performing infringing methods in Texas and this district in connection with providing DSL services to residential and business customers. These acts have caused and continue to cause injury to Intellectual Ventures II. Defendants derive substantial revenue from the sale of infringing products and services within Texas and this district, and/or expect or should reasonably expect their actions to have consequences within the State of Texas and this district. Defendants have availed themselves of the laws and protections of the State of Texas. In addition, Defendants knowingly induce infringement within the State of Texas and this district by contracting with others to market and

sell infringing products and services with the knowledge and intent to facilitate infringing sales and use of the products and services by others within Texas and this district. Further, CenturyLink sells and/or leases equipment to customers in Texas that has no substantial non-infringing use other than to be used as part of an infringing system and to perform the patented methods.

- 12. Venue is proper and convenient in this judicial district as to Defendants pursuant to 28 U.S.C. §§ 1391 and 1400(b).
- 13. Intellectual Ventures maintains a substantial physical presence within this district, with offices and 15 employees located at 515 Congress Avenue, Suite 1310, Austin, Texas 78701. Intellectual Ventures established its offices in Austin in 2008, and maintains a staff of engineers, attorneys, and professional staff at its Austin location. This office includes personnel who perform service for Intellectual Ventures II LLC.
- Defendants act jointly and collectively to offer for sale, sell, use, and induce the use of infringing DSL products and services. At least some of Plaintiff's right to relief is joint, several and/or in the alternative against Defendants and is with respect to or arises from the same transaction, occurrence, or series of transactions or occurrences relating to the same accused products and processes, namely the sale or use of infringing DSL apparatuses or systems. Defendants' accused activities relate to the same accused products or processes, said products and processes being at least the same in respects relevant to the Patents-in-Suit. Intellectual Ventures II's claims against Defendants share an aggregate of operative facts and common questions of fact will arise in this action, including the design and operation of the accused DSL systems, Defendants' collective actions in offering for sale, selling and using the accused products and

processes, and Defendants' collective actions to induce customers to perform some or all of the steps of the claimed methods.

THE PATENTS-IN-SUIT

- 15. Paragraphs 1-14 are reincorporated by reference as if fully set forth herein.
- 16. On July 23, 2002, United States Patent No. 6,424,636 ("the '636 Patent"), titled "Variable Rate And Variable Mode Transmission System," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `636 Patent is attached hereto as Exhibit A.
- 17. Intellectual Ventures II owns all substantial right, title, and interest in the `636 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 18. On June 12, 2001, United States Patent No. 6,246,695 ("the `695 Patent"), titled "Variable Rate And Variable Mode Transmission System," was duly and lawfully issued by the PTO. The `695 Patent is attached hereto as Exhibit B.
- 19. Intellectual Ventures II owns all substantial right, title, and interest in the `695 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 20. On August 4, 1998, United States Patent No. 5,790,548 ("the `548 Patent"), titled "Universal Access Multimedia Data Network," was duly and lawfully issued by the PTO. The `548 Patent is attached hereto as Exhibit C.
- 21. Intellectual Ventures II owns all substantial right, title, and interest in the `548 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.

- 22. On August 8, 2000, United States Patent No. 6,101,182 ("the `182 Patent"), titled "Universal Access Multimedia Data Network," was duly and lawfully issued by the PTO. The `182 Patent is attached hereto as Exhibit D.
- 23. Intellectual Ventures II owns all substantial right, title, and interest in the `182 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 24. On July 9, 1996, United States Patent No. 5,534,912 ("the '912 Patent"), titled "Extended Range Video On Demand Distribution System," was duly and lawfully issued by the PTO. The '912 Patent is attached hereto as Exhibit E.
- 25. Intellectual Ventures II owns all substantial right, title, and interest in the `912 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 26. On October 19, 2010, United States Patent No. 7,817,532 ("the `532 Patent"), titled "Adaptive Allocation for Variable Bandwidth Multicarrier Communication," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `532 Patent is attached hereto as Exhibit F.
- 27. Intellectual Ventures II owns all substantial right, title, and interest in the `532 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 28. On January 19, 2010, United States Patent No. 7,649,928 ("the `928 Patent"), titled "Method For Synchronizing Seamless Rate Adaptation," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `928 Patent is attached hereto as Exhibit G.

- 29. Intellectual Ventures II owns all substantial right, title, and interest in the `928 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 30. On October 25, 2011, United States Patent No. 8,045,601 ("the `601 Patent"), titled "Method For Synchronizing Seamless Rate Adaptation," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `601 Patent is attached hereto as Exhibit H.
- 31. Intellectual Ventures II owns all substantial right, title, and interest in the `601 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 32. On December 28, 2010, United States Patent No. 7,860,175 ("the `175 Patent"), titled "Method for Seamlessly Changing Power Modes In An ADSL System," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `175 Patent is attached hereto as Exhibit I.
- 33. Intellectual Ventures II owns all substantial right, title, and interest in the `175 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 34. On December 24, 2002, United States Patent No. 6,498,808 ("the `808 Patent"), titled "Seamless Rate Adaptive Multicarrier Modulation System And Protocols," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `808 Patent is attached hereto as Exhibit J.

- 35. Intellectual Ventures II owns all substantial right, title, and interest in the `808 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 36. On December 23, 2003, United States Patent No. 6,667,991 ("the `991 Patent"), titled "Method For Synchronizing Seamless Rate Adaptation," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `991 Patent is attached hereto as Exhibit K.
- 37. Intellectual Ventures II owns all substantial right, title, and interest in the `991 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 38. On November 25, 2003, United States Patent No. 6,654,410 ("the '410 Patent"), titled "Fast Initialization Using Seamless Rate Adaptation," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The '410 Patent is attached hereto as Exhibit L.
- 39. Intellectual Ventures II owns all substantial right, title, and interest in the '410 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 40. On March 24, 2009, United States Patent No. 7,508,876 ("the `876 Patent"), titled "Fast Initialization Using Seamless Rate Adaptation," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `876 Patent is attached hereto as Exhibit M.

- 41. Intellectual Ventures II owns all substantial right, title, and interest in the `876 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 42. On May 20, 2003, United States Patent No. 6,567,473 ("the '473 Patent"), titled "Method For Seamlessly Changing Power Modes In A ADSL System," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The '473 Patent is attached hereto as Exhibit N.
- 43. Intellectual Ventures II owns all substantial right, title, and interest in the '473 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 44. On September 28, 2004, United States Patent No. 6,798,735 ("the `735 Patent"), titled "Adaptive Allocation For Variable Bandwidth Multicarrier Communication," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `735 Patent is attached hereto as Exhibit O.
- 45. Intellectual Ventures II owns all substantial right, title, and interest in the `735 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 46. On July 24, 2001, United States Patent No. 6,266,348 ("the '348 Patent"), titled "Splitterless Multicarrier Modem," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The '348 Patent is attached hereto as Exhibit P.
- 47. Intellectual Ventures II owns all substantial right, title, and interest in the '348 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.

- 48. On September 18, 2007, United States Patent No. 7,272,171 ("the `171 Patent"), titled "Variable State Length Initialization," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `171 Patent is attached hereto as Exhibit Q.
- 49. Intellectual Ventures II owns all substantial right, title, and interest in the `171 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 50. On November 2, 2010, United States Patent No. 7,826,545 ("the `545 Patent"), titled "Variable State Length Initialization," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `545 Patent is attached hereto as Exhibit R.
- 51. Intellectual Ventures II owns all substantial right, title, and interest in the `545 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.
- 52. On November 11, 2003, United States Patent No. 6,647,068 ("the `068 Patent"), titled "Variable State Length Initialization," was duly and lawfully issued by the United States Patent and Trademark Office ("PTO"). The `068 Patent is attached hereto as Exhibit S.
- 53. Intellectual Ventures II owns all substantial right, title, and interest in the `068 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.

FACTUAL BACKGROUND

Intellectual Ventures

54. Intellectual Ventures Management, LLC ("Intellectual Ventures") was founded in 2000. Since its founding, Intellectual Ventures has been deeply involved in the business of invention. Intellectual Ventures creates inventions and files patent applications for those inventions; collaborates with others to develop and patent inventions; and acquires and licenses

patents from individual inventors, universities, and other institutions. A significant aspect of Intellectual Ventures' business is managing the plaintiffs in this case, Plaintiffs Intellectual Ventures II.

- 55. Intellectual Ventures' business includes purchasing important inventions from individual inventors and institutions and then licensing the inventions to those who need them. Through this business, Intellectual Ventures allows inventors to reap a financial reward from their innovations, a frequently difficult task for individual inventors. To date, Intellectual Ventures has built a portfolio of nearly 40,000 assets and more than 3,000 of those patents and patent applications are the result of Intellectual Ventures' own invention efforts, both in-house and with Intellectual Ventures' inventor network. Intellectual Ventures has paid individual inventors more than \$400 million for their inventions. Intellectual Ventures, in turn, has earned more than \$2 billion by licensing these patents to some of the world's most innovative and successful technology companies who continue to use them to make computer equipment, software, semiconductor devices, consumer products, and a host of other products.
- 56. Intellectual Ventures also develops its own inventions. Intellectual Ventures has a staff of scientists and engineers who develop ideas in a broad range of fields, including agriculture, computer hardware, life sciences, medical devices, semiconductors, and software. Intellectual Ventures has invested millions of dollars developing such ideas and has filed hundreds of patent applications on its inventions every year, making it one of the top patent filers in the world. Intellectual Ventures also has invested in laboratory facilities to assist with the development and testing of new ideas.
- 57. Intellectual Ventures also develops inventions by collaborating with inventors and research institutions around the world. For example, Intellectual Ventures has developed

inventions by selecting a technical challenge, requesting proposals for inventions to solve the challenge from inventors and institutions, selecting the most promising ideas, rewarding the inventors and institutions for their contributions, and filing patent applications on the ideas.

Intellectual Ventures has invested millions of dollars in this way and has created a network of more than 4000 inventors worldwide.

CenturyLink's Digital Subscriber Line (DSL) Services

- 58. CenturyLink is a leading provider of telecommunications services in the United States and the world. CenturyLink's services vary by market and include: Internet services, digital television ("TV") services, voice over Internet protocol services ("Voice") services, data/broadband services, video services, telecommunications equipment, managed networking, wireless communications services, local exchange services, wholesale telecommunications services, and long-distance services.
- 59. CenturyLink uses digital subscriber line ("DSL") technology and equipment to provide Internet, Voice, and/or TV services to residential and business subscribers located in various markets throughout the United States including Austin, Texas. DSL is a broadband transmission technology that involves sending digital information over a telephone line. Usually, the telephone line is owned by a local telephone company (also called a local exchange carrier). A DSL connection is normally terminated at each end of a telephone line by a DSL transceiver. Typically, a DSL connection is established using two main pieces of equipment: (1) DSL customer premises equipment located at a customer premises, and including a DSL transceiver ("Customer Premises Equipment"); and (2) DSL service provider equipment connected to one or more sets of DSL Customer Premises Equipment via telephone line, and including a DSL transceiver ("Service Provider Equipment"). Typically, the Service Provider Equipment is located at some distance remote from the customer premises that it connects to, and optionally

may include a digital subscriber line access multiplexer ("DSLAM") among various other elements. In some cases where DSL technology is used to provide digital television services, the Service Provider Equipment may include a video-ready access device ("VRAD"). In some situations, at least part of the Service Provider Equipment may be located at a central office of a telephone exchange that services corresponding customer premises.

- 60. CenturyLink uses DSL technology to provide Internet services under various service names including but not limited to CenturyLinkTM High-Speed Internet and Pure Broadband. According to its 10-K filings with the U.S. Securities and Exchange Commission, CenturyLink had 5.8 million broadband subscribers in June, 2012. Upon further information and belief, CenturyLink PrismTM TV is a brand name for digital television service provided by CenturyLink using DSL technology. CenturyLink customers may receive Prism TV service alone, or as part of a bundle with Voice and/or Internet services. Upon information and belief, CenturyLink ChoiceTM TV is a brand name for another DSL-based digital television service provided by CenturyLink in select markets.
- deployment at customer premises for the purpose of accessing CenturyLink 's DSL-based Internet, Voice and/or TV Services. Upon information and belief, CenturyLink also sells DSL Customer Premises Equipment that is designed and configured specifically to be compatible with CenturyLink Service Provider Equipment and CenturyLink's DSL-based Internet, Voice and/or TV Services. Upon information and belief, CenturyLink leases DSL Customer Premises Equipment to some subscribers. Upon information and belief, CenturyLink dispatches service technicians to customer premises in order to install, connect, configure, and use DSL Customer Premises Equipment. Upon information and belief, CenturyLink also provides instructions to

CenturyLink customers on how to install, connect, configure, and use DSL Customer Premises Equipment in order to access CenturyLink's DSL-based Internet, Voice and/or TV Services.

- 62. CenturyLink owns and operates at least some of the telephone lines used to deliver CenturyLink DSL-based Internet, Voice and/or TV Services to its customers. Upon information and belief, CenturyLink also leases at least some telephone lines from other exchange carriers in order to deliver CenturyLink DSL-based Internet, Voice and/or TV Services to its customers.
- 63. CenturyLink also provides wholesale DSL services to wholesale customers including Competitive Local Exchange Carriers and Resellers (collectively referred to herein as "CLECs") for resale to their Resale and CenturyLinkTM Local Services Platform (CLSPTM) end user customers. Upon information and belief, CenturyLink provides wholesale DSL transport services under the names CenturyLink Broadband for Resale and Qwest® Broadband for Resale. Upon information and belief, this service provides end users with fast and reliable internet connectivity and continuous dedicated access to a selected Internet Service Provider (ISP). Upon information and belief, CenturyLink's wholesale services are available with voice services (voice and data are transmitted concurrently over a single local loop and 'split' at the serving central office or remote terminal) or on a data only, no-voice ('standalone') basis.
- 64. CenturyLink's DSL-based Internet, Voice and TV Services, as well as CenturyLink's wholesale DSL transport services (collectively "CenturyLink's Wholesale and Retail DSL Services") are delivered via DSL communications networks that are designed, configured, integrated and arranged to operate in accordance with DSL standard specifications issued by the International Telecommunication Union, including: Very High Speed Digital Subscriber Line Transceivers 2 (VDSL2), Telecommunication Standardization Sector of

International Telecommunication Union (ITU-T), G.993.2 (the "VDSL2 standard"); and/or Asymmetric digital subscriber line transceivers 2 (ADSL2), Telecommunications

Standardization Sector of International Telecommunication Union (ITU-T), G.992.3 (the "ADSL2 standard").

- 65. At least some of the DSL Customer Premises Equipment that CenturyLink provides to its DSL customers is designed and configured for communication with CenturyLink's DSL Service Provider Equipment in accordance with DSL standard specifications including the ADSL2 and/or VDSL2 standards.
- 66. CenturyLink markets and offers for sale its Wholesale and Retail DSL Services to business and residential customers under the CenturyLink Inc. brand name through at least CenturyLink Inc.'s website, www.centurylink.com.
- 67. Upon information and belief, Qwest Corporation (d/b/a CenturyLink QC) ("Qwest") provides an array of communications services to residential, business, governmental and wholesale customers, including local voice, network access, private line (including special access), broadband, data and video services. In certain local and regional markets, Qwest also provides fiber transport and other telecommunications services to competitive local exchange carriers. Upon information and belief, Qwest maintains and operates a national fiber network that extends throughout the State of Texas, including this district. On further information and belief, as of December 31, 2011, Qwest Corporation operated approximately 8.5 million access lines in 14 states principally in the western United States, and served approximately 3.1 million broadband subscribers.
- 68. CenturyLink infringes the Patents-in-Suit by making, using, offering to sell, and selling DSL products and equipment and also by offering and providing CenturyLink's

Wholesale and Retail DSL Services to residential, business and governmental customers throughout the United States, including the Western District of Texas. Defendants are collectively and/or individually liable for providing the infringing products and/or services. For example, CenturyLink Inc. approves and authorizes capital expenditure by the CenturyLink Subsidiaries necessary to provide CenturyLink's Wholesale and Retail DSL Services to customers.

COUNT I (CenturyLink's Infringement of the `636 Patent)

- 69. Paragraphs 1-68 are incorporated by reference as if fully restated herein.
- 70. The `636 Patent covers, among other things, a DSL transmission system for transmitting information at selectable transmission rates in upstream and downstream directions between first and second DSL modems. CenturyLink installs, configures, controls and operates DSL Service Provider Equipment and Customer Premises Equipment for the purpose of providing Wholesale and Retail DSL Services in a manner that provides for setting transmission rates in upstream and/or downstream directions. As a result of these actions, CenturyLink has directly infringed one or more claims of the `636 Patent, either literally or under the doctrine of equivalents, by making and using infringing systems in violation of 35 U.S.C. § 271(a). In addition, customers who subscribe to CenturyLink's Wholesale and Retail DSL Services have and continue to directly infringe the `636 Patent in violation of 35 U.S.C. § 271(a) by using DSL systems covered by claims of the `636 Patent, either literally or under the doctrine of equivalents.
- 71. CenturyLink also indirectly infringes the `636 Patent under 35 U.S.C. § 271(b) by actively inducing its customers to infringe the `636 Patent. CenturyLink has had knowledge of the `636 Patent since at least the filing date of this complaint. Further, CenturyLink possesses

the specific intent to encourage others, including its DSL customers, to infringe the `636 Patent, or at the very least is willfully blind to such infringement.

- 72. CenturyLink encourages its DSL customers to infringe the `636 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then operated by customers and end users to communicate with CenturyLink Service Provider Equipment in accordance with one or more claims of the `636 Patent. In addition, CenturyLink encourages its DSL customers to infringe the `636 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink Service Provider Equipment in a manner that causes CenturyLink's customers to practice one or more claims of the `636 Patent.
- 73. Intellectual Ventures II has suffered damage as a result of CenturyLink's infringement of the `636 Patent.

COUNT II(CenturyLink's Infringement of the `695 Patent)

- 74. Paragraphs 1-73 are incorporated by reference as if fully restated herein.
- 75. The `695 Patent covers, among other things, a DSL transmission system including first and second transceivers connected via a subscriber loop for transmitting and receiving information over first and second channels, wherein each of the transceivers includes a controller for selectively changing transmission rates to select between two specified asymmetrical digital subscriber line ("ADSL") modes. CenturyLink installs, configures, controls and operates Service Provider Equipment and Customer Premises Equipment for the purpose of providing Wholesale and Retail DSL Services to customers via subscriber loops in a manner that provides for selectively changing transmission rates to select between two specified ADSL modes. As a result of these actions, CenturyLink directly infringes the `695 Patent, either literally or under the

doctrine of equivalents, in violation of 35 U.S.C. § 271(a) by making and using DSL systems covered by claims of the `695 Patent. In addition, customers who subscribe to CenturyLink's Wholesale and Retail DSL Services have and continue to directly infringe the `695 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) by using DSL systems covered by claims of the `695 Patent.

- 76. CenturyLink also indirectly infringes the `695 Patent under 35 U.S.C. § 271(b) by actively inducing its customers to infringe the `695 Patent. CenturyLink has had knowledge of the `695 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers, to infringe the `695 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to infringe the `695 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink Service Provider Equipment in a manner that causes

 CenturyLink customers to use DSL systems covered by claims of the `695 Patent. In addition,

 CenturyLink encourages its DSL customers to infringe the `695 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink Service Provider Equipment in a manner that causes

 CenturyLink customers to use DSL systems covered by claims of the `695 Patent.
- 77. CenturyLink also indirectly infringes the `695 Patent under 35 U.S.C. § 271(c) by contributing to its customer's infringement of the `695 Patent. CenturyLink imports into the United States, offers to sell, and sells DSL Customer Premises Equipment to customers who subscribe to CenturyLink's Wholesale and Retail DSL Services knowing that such equipment constitutes a material component of the systems claimed in the `695 Patent, and knowing the

same to be especially made and adapted for use in the customer's direct infringement of the `695 Patent, and further knowing that such equipment is not a staple article or commodity of commerce suitable for substantial noninfringing use. The DSL Customer Premises Equipment that CenturyLink sells to its customers is designed and configured specifically to be compatible with and interoperable with CenturyLink Service Provider Equipment, wherein integration of the Customer Premises Equipment creates a system falling within one or more claims of the `695 Patent that is then used by the customer.

78. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `695 Patent.

COUNT III (CenturyLink's Infringement of the `548 Patent)

- 79. Paragraphs 1-78 are incorporated by reference as if fully restated herein.
- 80. The `548 Patent covers, among other things, a method for establishing an Internet connection from a Customer Premises Equipment to an Internet connected information services provider, including establishing an ADSL connection, assigning a temporary Internet address, translating a domain name to an Internet address, and using the translated Internet Address to connect the Customer Premises Equipment to an Internet connected information services provider via the ADSL connection. CenturyLink performs such a method by controlling and operating a DSL system including DSL Customer Premises Equipment and Service Provider Equipment to provide a system that gives customers access to Internet connected information service providers. As a result of these actions, CenturyLink has directly infringed, either literally or under the doctrine of equivalents, one or more method claims of the `548 Patent in violation of 35 U.S.C. § 271(a).

- 81. CenturyLink also indirectly infringes the `548 Patent indirectly under 35 U.S.C. § 271(b) by actively inducing its customers to use Customer Premises Equipment connected to CenturyLink's Service Provider Equipment in a manner that results in performance by a customer of some or all of the steps required by method claims of the `548 Patent, while CenturyLink concurrently operates its Service Provider Equipment in a manner that results in performance by CenturyLink of at least a remainder of the steps required by the same method claims of the `548 Patent. The performance of processes falling within the within the scope of one or more method claims of the `548 Patent, resulting from steps performed by CenturyLink in conjunction with the steps that CenturyLink induces its customers to perform, has caused and will continue to cause direct infringement of method claims of the `548 Patent, either literally or under the doctrine of equivalents.
- 82. Qwest Communications International, Inc., which is a subsidiary of CenturyLink, Inc., is the current assignee of U.S. Patent No. 6,873,622 (issued on March 29, 2005) and U.S. Patent No. 6,195,364 (issued on February 27, 2001). The `548 Patent was considered by the U.S. patent office during prosecution of both of these patents. No later than May 12, 2000, Qwest Communications International, Inc. cited the `548 Patent in an Information Disclosure Statement during prosecution of U.S. Patent No. 6,873,622. Accordingly, since at least as early as May 12, 2000, Qwest Communications International, Inc. has had knowledge of the `548 Patent. Upon information and belief, CenturyLink Inc. and its subsidiaries are under common direction, management, and control. Therefore, each of the CenturyLink Defendants has had knowledge of the `548 Patent since at least as early as their respective dates of acquisition by, or merger with CenturyLink, Inc. Alternatively, CenturyLink has had knowledge of the `548 Patent since at least the filing date of this complaint. Further, CenturyLink has had and continues to

have the specific intent to encourage others, including its DSL customers, to perform some or all of the steps required by method claims of the `548 Patent, resulting in infringement of the '548 Patent, or at the very least has been willfully blind to such infringement. CenturyLink encourages its DSL customers to perform some or all of the steps required by certain method claims of the `548 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink Service Provider Equipment in a manner that, in coordination and combination with steps performed by CenturyLink's actions, results in infringement of certain method claims of the `548 Patent. In addition, CenturyLink encourages its customers to perform some or all of the steps required by certain method claims of the `548 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink Service Provider Equipment in a manner that, in coordination and combination with steps performed by CenturyLink's actions, resulted in and continues to result in performance of all of the steps of certain method claims of the `548 Patent.

- 83. CenturyLink's infringement of the `548 Patent has also been willful and the Court should award treble damages pursuant to 35 U.S.C. § 284. CenturyLink has had knowledge of the `548 Patent since well before the filing date of this complaint, has acted despite an objectively high likelihood that its actions constitute infringement of this patent, and has known or should have known of this objectively high risk.
- 84. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `548 Patent.

(CenturyLink's Infringement of the `182 Patent)

85. Paragraphs 1-84 are incorporated by reference as if fully restated herein.

- 86. The `182 Patent covers, among other things, a communication system comprising telephone switching equipment, local loops connecting the switching equipment to customer premises equipment, splitters for splitting signals received over local loops into data signals and telephony signals, and equipment that provides for dynamic handling of addresses for data signals. CenturyLink integrates, configures, controls and operates communications systems including telephone switching equipment, DSL Service Provider Equipment connected to DSL Customer Premises Equipment via local loops, DSL splitter devices, and service provider equipment that provides for dynamic handling of Internet addresses. As a result of these actions, CenturyLink directly infringes the `182 Patent in violation of 35 U.S.C. § 271(a) by making and using systems covered by claims of the `182 Patent, either literally or under the doctrine of equivalents. In addition, customers who subscribe to CenturyLink's DSL-based Internet, Voice and TV Services have and continue to directly infringe the `182 Patent in violation of 35 U.S.C. § 271(a) by using systems covered by claims of the `182 Patent, either literally or under the doctrine of equivalents.
- 87. CenturyLink also infringes the `182 Patent indirectly under 35 U.S.C. § 271(b) by actively inducing its customers to infringe the `182 Patent. Upon information and belief, Qwest Communications International, Inc., which is a subsidiary of CenturyLink, Inc., is the current assignee of U.S. Patent No. 6,160,810, which issued on December 12, 2000. The `182 Patent was considered by the patent examiner during prosecution of U.S. Patent No. 6,160,810.

 Accordingly, since at least as early as December 12, 2000, Qwest Communications International, Inc. has had knowledge of the `182 Patent. Upon information and belief, CenturyLink Inc. and its subsidiaries are under common direction, management, and control. Therefore, each of the CenturyLink Defendants has had knowledge of the `182 Patent since at least as early as their

respective date s of acquisition by, or merger with CenturyLink, Inc. Alternatively, CenturyLink has had knowledge of the `182 Patent since at least the filing date of this complaint. Further, CenturyLink has had and continues to have the specific intent to encourage others, including its DSL customers, to infringe the `182 Patent, or at the very least has been willfully blind to such infringement. CenturyLink encourages its DSL customers to infringe the `182 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink Service Provider Equipment. In addition, CenturyLink encourages its DSL customers to infringe the `182 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink Service Provider Equipment in a manner that causes CenturyLink customers to use DSL systems covered by the claims of the '182 Patent.

88. CenturyLink also infringes the `182 Patent indirectly under 35 U.S.C. § 271(c) by contributing to its own customer's infringement of the `182 Patent. CenturyLink imports into the United States, offers to sell, and sells DSL Customer Premises Equipment to customers who subscribe to CenturyLink's Wholesale and Retail DSL Services knowing that such equipment constitutes a material component of the systems claimed in the `182 Patent, and knowing the same to be especially made and adapted for use in the customer's direct infringement of the `182 Patent, and further knowing that such equipment is not a staple article or commodity of commerce suitable for substantial noninfringing use. The DSL Customer Premises Equipment that CenturyLink sells to its customers is designed and configured specifically to be compatible with and interoperable with CenturyLink Service Provider Equipment, wherein integration of the

Customer Premises Equipment creates a system falling within one or more claims of the `182 Patent that is then used by the customer.

- 89. CenturyLink's infringement of the `182 Patent has also been willful and the Court should award treble damages pursuant to 35 U.S.C. § 284. CenturyLink has had knowledge of the `182 Patent since well before the filing date of this complaint, has acted despite an objectively high likelihood that its actions constitute infringement of this patent, and has known or should have known of this objectively high risk.
- 90. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `182 Patent.

COUNT V (CenturyLink's Infringement of the `912 Patent)

- 91. Paragraphs 1-90 are incorporated by reference as if fully restated herein.
- 92. CenturyLink, either alone or in conjunction with others, has directly infringed the `912 Patent by performing processes covered by one or more of the method claims of the `912 Patent, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271(a).
- 93. The `912 Patent covers, among other things, a method of improving a video distribution system that provides information to end users over telephone lines using asymmetrical digital subscriber line ("ADSL") interface units, wherein an ADSL source side interface unit is located at a site remote from a central office and connected to a source of video information using a broadband communication link. CenturyLink performs such a method when arranging, connecting, and deploying video distribution systems using fiber-to-the-node ("FTTN") techniques and other technology in a manner that directly infringes certain method claims of the `912 Patent in violation of 35 U.S.C. § 271(a).

- 94. Qwest Communications International, Inc., which is a subsidiary of CenturyLink, Inc., is the current assignee of U.S. Patent No. 6,178,179 (issued on January 23, 2001) and U.S. Patent No. 8,064,369 (issued on November 22, 2011). The `912 Patent was considered by the U.S. patent office during prosecution of both of these patents. On April 14, 2000, Qwest Communications International, Inc. cited the `912 Patent in an Information Disclosure Statement during prosecution of U.S. Patent No. 8,064,369. Accordingly, since at least as early as April 14, 2000, Qwest Communications International, Inc. has had knowledge of the `912 Patent. Upon information and belief, CenturyLink Inc. and its subsidiaries are under common direction, management, and control. Therefore, each of the CenturyLink Defendants has had knowledge of the `912 Patent since at least as early as their respective date s of acquisition by, or merger with CenturyLink, Inc. Alternatively, CenturyLink has had knowledge of the `912 Patent since at least the filing date of this complaint.
- 95. CenturyLink's infringement of certain method claims of the `912 Patent has also been willful and the Court should award treble damages pursuant to 35 U.S.C. § 284. CenturyLink has had knowledge of the `912 Patent since well before the filing date of this complaint, has acted despite an objectively high likelihood that its actions constitute infringement of this patent, and has known or should have known of this objectively high risk.
- 96. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `912 Patent.

COUNT VI (CenturyLink's Infringement of the `532 Patent)

- 97. Paragraphs 1-96 are incorporated by reference as if fully restated herein.
- 98. The `532 Patent covers, among other things, a method for communication performed by a transceiver in a multicarrier modulation system that includes utilizing a first

allocation of bits to sub-channels, selecting a different allocation of bits, transmitting a flag, and utilizing the different allocation of bits to communicate after a predetermined number of frames following transmission of the flag. CenturyLink directly infringes one or more method claims of the `532 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) by operating DSL Service Provider Equipment and/or operating DSL Customer Premises Equipment to deliver DSL services that conform with the ADSL2 and/or VDSL2 standards.

- 99. CenturyLink's DSL customers and end users have also directly infringed, and continue to directly infringe one or more of the method claims of the `532 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) through their use and operation of DSL Customer Premises Equipment configured for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards.
- 100. CenturyLink also infringes the `532 Patent indirectly under 35 U.S.C. § 271(b) by actively inducing its customers to infringe. CenturyLink has had knowledge of the `532 Patent since at least the filing date of this complaint. CenturyLink possesses specific intent to encourage others, including its DSL customers and end users, to infringe certain method claims of the `532 Patent by using certain Customer Premises Equipment, or at the very least has been willfully blind to such infringement. CenturyLink encourages its DSL customers to infringe the `532 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes customers to infringe certain method claims of the `532 Patent. In addition, CenturyLink encourages its DSL customers to infringe certain method claims of the

- `532 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes customers to infringe claims of the `532 Patent.
- 101. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `532 Patent.

COUNT VII (CenturyLink's Infringement of the `928 Patent)

- 102. Paragraphs 1-101 are incorporated by reference as if fully restated herein.
- 103. The `928 Patent covers, among other things, a method for seamlessly changing transmission parameters in a multicarrier transceiver, wherein a seamless transition is based on a sync symbol or an inverted sync symbol. CenturyLink directly infringes one or more of the method claims of the `928 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) when operating DSL Service Provider Equipment and/or operating DSL Customer Premises Equipment to deliver DSL services that conform with the ADSL2 and/or VDSL2 standards.
- 104. CenturyLink's DSL customers and end users have also directly infringed, and continue to directly infringe one or more of the method claims of the `928 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) through their use and operation of DSL Customer Premises Equipment configured for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards.
- 105. CenturyLink also infringes the `928 Patent indirectly under 35 U.S.C. § 271(b) by actively inducing its customers to infringe certain method claims of the `928 Patent.

CenturyLink has had knowledge of the `928 Patent since at least the filing date of this complaint. CenturyLink possesses specific intent to encourage others, including its DSL customers and end users to infringe method claims of the `928 Patent by using certain Customer Premises Equipment, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to infringe the `928 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes CenturyLink customers to infringe method claims of the `928 Patent. In addition, CenturyLink encourages this infringement by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes CenturyLink customers to infringe method claims of the `928 Patent.

106. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `928 Patent.

COUNT VIII (CenturyLink's Infringement of the `601 Patent)

- 107. Paragraphs 1-106 are incorporated by reference as if fully restated herein.
- 108. The `601 Patent covers, among other things, an apparatus including a transceiver configured to transmit a message during data communications to change from a first data rate to a second data rate, and to make a transition between the first and second data rates based at least on a sync symbol or a phase-shifted sync symbol. CenturyLink directly infringes one or more claims of the `601 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) by operating DSL Service Provider Equipment and/or operating DSL Customer

Premises Equipment in accordance with the ADSL2 and/or VDSL2 standards as well as by offering to sell and selling DSL Customer Premises Equipment capable of communicating data in accordance with the ADSL2 and/or VDSL2 standards.

- 109. CenturyLink's DSL customers and end users have also directly infringed, and continue to directly infringe one or more of the claims of the `601 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) through their use and operation of DSL Customer Premises Equipment configured for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards.
- 110. CenturyLink also infringes the `601 Patent indirectly under 35 U.S.C. § 271(b) by actively inducing its customers to infringe the `601 Patent upon use of certain DSL Customer Premises Equipment. CenturyLink has had knowledge of the `601 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers and end users, to infringe claims of the `601 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to infringe the `601 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes CenturyLink customers to infringe claims of the `601 Patent. In addition, CenturyLink encourages this infringement by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes CenturyLink customers to infringe claims of the `601 Patent.

111. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `601 Patent.

COUNT IX (CenturyLink's Infringement of the `175 Patent)

- 112. Paragraphs 1-111 are incorporated by reference as if fully restated herein.
- transmission parameters in a multicarrier transmitter based on a change in phase of a non-data-carrying Discrete Multitone Modulation ("DMT") symbol, wherein the data-carrying DMT symbols are decoupled from a plurality of codewords and a plurality of ADSL frames.

 CenturyLink directly infringes one or more of the method claims of the `175 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) when operating DSL Service Provider Equipment and/or operating DSL Customer Premises Equipment to deliver DSL services that conform with the ADSL2 and/or VDSL2 standards.
- 114. CenturyLink's DSL customers and end users have also directly infringed, and continue to directly infringe one or more of the method claims of the `175 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) through their use of DSL Customer Premises Equipment configured for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards.
- 115. CenturyLink also infringes the `175 Patent indirectly under 35 U.S.C. § 271(b) by actively inducing its customers to infringe certain method claims of the `175 Patent upon use of certain DSL Customer Premises Equipment. CenturyLink has had knowledge of the `175 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers and end users, to infringe method claims of the `175 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages

its DSL customers to infringe the `175 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes CenturyLink customers to infringe method claims of the `175 Patent. In addition, CenturyLink encourages its DSL customers to infringe the `175 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes CenturyLink customers to infringe method claims of the `175 Patent.

116. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `175 Patent.

COUNT X (CenturyLink's Infringement of the `808 Patent)

- 117. Paragraphs 1-116 are incorporated by reference as if fully restated herein.
- 118. The `808 Patent covers, among other things, a method for seamlessly changing a transmission bit rate in a multicarrier communication system, which includes seamlessly transitioning from a first rate to a second rate, wherein a specified codeword size and a specified number of parity bits for forward error correction used when transmitting each of a first plurality of codewords are used when transmitting each of a second plurality of codewords. CenturyLink directly infringes one or more of the method claims of the `808 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) when operating DSL Service Provider Equipment and/or operating DSL Customer Premises Equipment to deliver DSL services that conform with the ADSL2 and/or VDSL2 standards.

- 119. CenturyLink's DSL customers and end users have also directly infringed, and continue to directly infringe one or more of the method claims of the `808 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) through their use and operation of DSL Customer Premises Equipment configured for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards.
- 120. CenturyLink also infringes the `808 Patent indirectly under 35 U.S.C. § 271(b) by actively inducing its customers to infringe method claims of the `808 Patent upon use of certain DSL Customer Premises Equipment. All of the CenturyLink Defendants have had knowledge of the `808 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers and end users, to infringe method claims of the `808 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to infringe method claims of the `808 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes CenturyLink customers to infringe the `808 Patent. In addition, CenturyLink encourages this infringement by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes CenturyLink customers to infringe method claims of the `808 Patent.
- 121. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `808 Patent.

COUNT XI (CenturyLink's Infringement of the `991 Patent)

- 122. Paragraphs 1-121 are incorporated by reference as if fully restated herein.
- 123. The `991 Patent covers, among other things, a method for seamlessly changing a bit rate in a multicarrier communication system including a transmitter and a receiver based on a message having at least one parameter of a second bit allocation table, and synchronizing use of the second bit allocation table between the transmitter and receiver. CenturyLink directly infringes one or more of the method claims of the `991 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) by controlling and operating DSL systems (including DSL Customer Premises Equipment and Service Provider Equipment) that operate in accordance with the ADSL2 and/or VDSL2 standards.
- 124. CenturyLink also infringes the `991 Patent indirectly under 35 U.S.C. § 271(b) by actively inducing its customers to use DSL Customer Premises Equipment connected to CenturyLink's Service Provider Equipment in a manner that results in performance by a customer of some or all of the steps required by method claims of the `991 Patent, while CenturyLink concurrently operates its Service Provider Equipment in a manner that results in performance by CenturyLink of at least a remainder of the steps required by the same method claims of the `991 Patent. The performance of processes falling within the within the scope of one or more method claims of the `991 Patent, resulting from steps performed by CenturyLink in conjunction with the steps that CenturyLink induces its customers to perform, has caused and will continue to cause infringement of method claims of the `991 Patent, either literally or under the doctrine of equivalents.
- 125. CenturyLink has had knowledge of the `991 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its

DSL customers, to perform some or all of the steps required by method claims of the `991 Patent, resulting in infringement of the '991 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to perform some or all of the steps required by certain method claims of the `991 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink Service Provider Equipment in a manner that, in coordination and combination with steps performed by CenturyLink's actions, results infringement of certain method claims of the `991 Patent. In addition, CenturyLink encourages its customers to perform some or all of the steps required by certain method claims of the `991 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink Service Provider Equipment in a manner that, in coordination and combination with steps performed by CenturyLink's actions, results in performance of certain method claims of the `991 Patent.

126. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `991 Patent.

COUNT XII (CenturyLink's Infringement of the `410 Patent)

- 127. Paragraphs 1-126 are incorporated by reference as if fully restated herein.
- 128. The `410 Patent covers, among other things, a method of initializing to establish a communication link between first and second transceivers using a first bit allocation table that approximates a corresponding actual second bit allocation table. CenturyLink performs such a method by controlling and operating a DSL system including the DSL Customer Premises Equipment and the Service Provider Equipment to operate in accordance with the ADSL2 standard. As a result of these actions, CenturyLink directly infringes one or more of the method

claims of the `410 Patent, either literally or under the doctrine of equivalents in violation of 35 U.S.C. § 271(a).

- 129. CenturyLink also infringes the `410 Patent indirectly under 35 U.S.C. § 271(b) by actively inducing its customers to use DSL Customer Premises Equipment connected to CenturyLink's Service Provider Equipment in a manner that results in performance by a customer of some or all of the steps required by method claims of the `410 Patent, while CenturyLink concurrently operates its Service Provider Equipment in a manner that results in performance by CenturyLink of at least a remainder of the steps required by the same method claims of the `410 Patent. The performance of processes falling within the within the scope of one or more method claims of the `410 Patent, resulting from steps performed by CenturyLink in conjunction with the steps that CenturyLink induces its customers to perform, has caused and will continue to cause infringement of method claims of the `410 Patent, either literally or under the doctrine of equivalents.
- 130. CenturyLink has had knowledge of the `410 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers, to perform some or all of the steps required by method claims of the `410 Patent, resulting in infringement of the '410 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to perform some or all of the steps required by certain method claims of the `410 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink Service Provider Equipment in a manner that, in coordination and combination with steps performed by CenturyLink's actions, results in infringement of certain method claims of the `410 Patent. In addition, CenturyLink encourages

Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink Service Provider Equipment in a manner that, in coordination and combination with steps performed by CenturyLink's actions, result in performance of certain method claims of the `410 Patent.

131. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `410 Patent.

COUNT XIII(CenturyLink's Infringement of the `876 Patent)

- 132. Paragraphs 1-131 are incorporated by reference as if fully restated herein.
- 133. The `876 Patent covers, among other things, a method for multicarrier communications that includes performing an initialization to establish a communication link at a first data rate using a first bit allocation table stored prior to the initialization and seamlessly adapting the first data rate to a second data rate using a second bit allocation table, transmitting or receiving a first plurality of codewords at the first data rate, changing the first data rate to the second data rate, and transmitting or receiving a second plurality of codewords at the second data rate, wherein a specified codeword size and a specified number of parity bits for forward error correction used for the first plurality of codewords are used for the second plurality of codewords to achieve a seamless change in data rate. CenturyLink directly infringes one or more of the method claims of the `876 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) when operating DSL Service Provider Equipment and/or operating DSL Customer Premises Equipment to deliver DSL services that conform with the ADSL2 standard.
- 134. CenturyLink's DSL customers and end users have also directly infringed, and continue to directly infringe one or more of the method claims of the `876 Patent, either literally

or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) through their use and operation of DSL Customer Premises Equipment configured for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 standard.

- CenturyLink also infringes the `876 Patent indirectly in violation of 35 U.S.C. § 135. 271(b) by actively inducing its customers to infringe method claims of the `876 Patent through the use of certain DSL Customer Premises Equipment. CenturyLink has had knowledge of the `876 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers and end users, to infringe method claims of the `876 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to infringe the `876 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 standard in a manner that causes CenturyLink customers to infringe method claims of the `876 Patent. In addition, CenturyLink encourages this infringement by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 standard in a manner that causes CenturyLink customers to infringe method claims of the `876 Patent.
- 136. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `876 Patent.

COUNT XIV(CenturyLink's Infringement of the `473 Patent)

137. Paragraphs 1-136 are incorporated by reference as if fully restated herein.

- 138. The `473 Patent covers, among other things, a method for seamlessly changing between a first power mode and a second power mode in a system including a transmitter and a receiver, wherein a specified codeword size, and a specified number of parity bits for forward error correction used to transmit and receive codewords in the first power mode are also used to transmit and receive codewords in the second power mode. CenturyLink performs such a method by controlling and operating a DSL system including DSL Customer Premises Equipment and DSL Service Provider Equipment in accordance with the ADSL2 standard. As a result of these actions, CenturyLink directly infringes one or more of the method claims of the `473 Patent, either literally or under the doctrine of equivalents in violation of 35 U.S.C. § 271(a).
- 139. CenturyLink also indirectly infringes the `473 Patent under 35 U.S.C. § 271(b) by actively inducing its customers to use Customer Premises Equipment configured for communication with CenturyLink's Service Provider Equipment in accordance with the ADSL2 standard in a manner that results in performance by a customer of some or all of the steps required by method claims of the `473 Patent, while CenturyLink concurrently operates its Service Provider Equipment in a manner that results in performance by CenturyLink of at least a remainder of the steps required by the same method claims of the `473 Patent. The performance of processes falling within the within the scope of one or more method claims of the `473 Patent, resulting from steps performed by CenturyLink in conjunction with the steps that CenturyLink induces its customers to perform, has caused and will continue to cause infringement of method claims of the `473 Patent, either literally or under the doctrine of equivalents.
- 140. CenturyLink has had knowledge of the `473 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its

DSL customers, to perform some or all of the steps required by method claims of the `473 Patent, resulting in infringement of the '473 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to perform some or all of the steps required by certain method claims of the `473 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink Service Provider Equipment in accordance with the ADSL2 standard in a manner that, in coordination and combination with steps performed by CenturyLink's actions, results infringement of certain method claims of the `473 Patent. In addition, CenturyLink encourages its customers to perform some or all of the steps required by certain method claims of the `473 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink Service Provider Equipment in accordance with the ADSL2 standard in a manner that, in coordination and combination with steps performed by CenturyLink's actions, results in performance of certain method claims of the `473 Patent.

141. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `473 Patent.

COUNT XV (CenturyLink's Infringement of the `735 Patent)

- 142. Paragraphs 1-141 are incorporated by reference as if fully restated herein.
- 143. The `735 Patent covers, among other things, a method for communication between two units, including allocating bits to subchannels according to a first bit allocation table, monitoring the channel to develop a second bit allocation table, transmitting the second bit allocation table to the other of the two units, and storing the first and second bit allocation tables at each of the units. CenturyLink performs such a method by controlling and operating a DSL

system including DSL Customer Premises Equipment and DSL Service Provider Equipment in accordance with the ADSL2 standard. As a result, CenturyLink directly infringes one or more of the method claims of the `735 Patent, either literally or under the doctrine of equivalents in violation of 35 U.S.C. § 271(a).

- 144. CenturyLink also infringes the `735 Patent indirectly under 35 U.S.C. § 271(b) by actively inducing its customers to use Customer Premises Equipment configured for communication with CenturyLink's Service Provider Equipment in accordance with the ADSL2 standard in a manner that results in performance by a customer of some or all of the steps required by method claims of the `735 Patent, while CenturyLink concurrently operates its Service Provider Equipment in a manner that results in performance by CenturyLink of at least a remainder of the steps required by the same method claims of the `735 Patent. The performance of processes falling within the within the scope of one or more method claims of the `735 Patent, resulting from steps performed by CenturyLink in conjunction with the steps that CenturyLink induces its customers to perform, has caused and will continue to cause infringement of method claims of the `735 Patent, either literally or under the doctrine of equivalents.
- 145. CenturyLink has had knowledge of the `735 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers, to perform some or all of the steps required by method claims of the `735 Patent, resulting in infringement of the '735 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to perform some or all of the steps required by certain method claims of the `735 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink Service Provider Equipment in accordance with the

ADSL2 standard in a manner that, in coordination and combination with steps performed by CenturyLink's actions, causes performance of certain method claims of the `735 Patent. In addition, CenturyLink encourages its customers to perform some or all of the steps required by certain method claims of the `735 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink Service Provider Equipment in accordance with the ADSL2 standard in a manner that, in coordination and combination with steps performed by CenturyLink's actions, causes performance of certain method claims of the `735 Patent.

146. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `735 Patent.

COUNT XVI (CenturyLink's Infringement of the `348 Patent)

- 147. Paragraphs 1-146 are incorporated by reference as if fully restated herein.
- 148. The `348 Patent covers, among other things, a method of transmitting data through upstream and downstream channels, respectively, from first and second pluralities of subchannels, including storing at least first and second parameter sets defining data communications over the channels under at least two different communication conditions, and selecting a parameter set for use in accordance with a prevailing communication condition. CenturyLink directly infringes one or more of the method claims of the `348 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) when operating DSL Service Provider Equipment and/or operating DSL Customer Premises Equipment to deliver DSL services that conform with the ADSL2 standard.
- 149. CenturyLink's DSL customers and end users have also directly infringed, and continue to directly infringe one or more of the method claims of the `348 Patent, either literally

or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) through their use and operation of DSL Customer Premises Equipment configured for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 standard. As a result, CenturyLink's customers are direct infringers pursuant to 35 U.S.C. § 271(a).

- CenturyLink also infringes the `348 Patent indirectly under 35 U.S.C. § 271(b) by 150. actively inducing its customers to infringe method claims of the `348 Patent upon use of certain DSL Customer Premises Equipment. CenturyLink has had knowledge of the `348 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers and end users, to use DSL Customer Premises Equipment configured for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 standard in a manner that results in infringement of method claims of the `348 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to infringe the `348 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 standard in a manner that causes infringement of method claims of the `348 Patent. In addition, CenturyLink encourages this infringement by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 standard in a manner that causes infringement of method claims of the `348 Patent.
- 151. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `348 Patent.

COUNT XVII(CenturyLink's Infringement of the `171 Patent)

- 152. Paragraphs 1-151 are incorporated by reference as if fully restated herein.
- 153. The `171 Patent covers, among other things, a variable state length initialization method including transmitting from a first transceiver to a second transceiver information identifying a first value that is used to determine a first minimum number of symbols, transmitting from the second transceiver to the first transceiver information identifying a second value that is used to determine a second minimum number of symbols, selecting the greater of the first and second minimum number of symbols, and transmitting from the first transceiver to the second transceiver, during an initialization state, the selected number of multicarrier symbols. CenturyLink performs such a method by controlling and operating a DSL system including DSL Customer Premises Equipment and DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards. As a result of these actions, CenturyLink has directly infringed one or more of the method claims of the `171 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a).
- 154. CenturyLink also indirectly infringes the `171 Patent under 35 U.S.C. § 271(b) by actively inducing its customers to use Customer Premises Equipment configured for communication with CenturyLink's Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that results in performance by a customer of some or all of the steps required by method claims of the `171 Patent, while CenturyLink concurrently operates its Service Provider Equipment in a manner that results in performance by CenturyLink of at least a remainder of the steps required by the same method claims of the `171 Patent. The performance of processes falling within the within the scope of one or more method claims of the `171 Patent, resulting from steps performed by CenturyLink in conjunction with the steps that

CenturyLink induces its customers to perform, has caused and will continue to cause infringement of method claims of the `171 Patent, either literally or under the doctrine of equivalents.

- 155. CenturyLink has had knowledge of the `171 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers, to perform some or all of the steps required by method claims of the `171 Patent, resulting in infringement of the '171 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to perform some or all of the steps required by certain method claims of the `171 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that, in coordination and combination with steps performed by CenturyLink's actions, results in infringement of certain method claims of the `171 Patent. In addition, CenturyLink encourages its customers to perform some or all of the steps required by certain method claims of the `171 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that, in coordination and combination with steps performed by CenturyLink's actions, results in infringement of certain method claims of the `171 Patent.
- 156. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `171 Patent.

COUNT XVIII (CenturyLink's Infringement of the `545 Patent)

157. Paragraphs 1-156 are incorporated by reference as if fully restated herein.

- 158. The `545 Patent covers, among other things, a multicarrier communication system including a transmitter and a receiver configured to perform a variable state length initialization method that includes a transmission, or a reception, of a message during an initialization state, wherein the message includes a selected number of multicarrier symbols, and wherein the transmitter and the receiver are configured to cooperatively determine the selected number of multicarrier symbols. CenturyLink directly infringes one or more method claims of the `545 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) when operating DSL Service Provider Equipment and/or operating DSL Customer Premises Equipment to deliver DSL services that conform to the ADSL2 and/or VDSL2 standards.
- 159. CenturyLink's DSL customers and end users have also directly infringed, and continue to directly infringe one or more of the method claims of the `545 Patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a) through their use and operation of DSL Customer Premises Equipment configured for communication with CenturyLink's DSL Service Provider Equipment in accordance with ADSL2 and/or VDSL2 standards.
- 160. CenturyLink also indirectly infringes the `545 Patent under 35 U.S.C. § 271(b) by actively inducing its customers to infringe method claims of the `545 Patent upon use of certain DSL Customer Premises Equipment. CenturyLink has had knowledge of the `545 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers and end users, to infringe method claims of the `545 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to infringe the `545 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to

communicate with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes customers to infringe method claims of the `545 Patent. In addition, CenturyLink encourages infringement by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink's DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that causes customers to infringe method claims of the `545 Patent.

161. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `545 Patent.

COUNT XIX (CenturyLink's Infringement of the `068 Patent)

- 162. Paragraphs 1-161 are incorporated by reference as if fully restated herein.
- 163. The `068 Patent covers, among other things, a method for variable state length initialization that includes transmitting from a first to a second transceiver information identifying a value that determines a minimum number of symbols in an initialization state, transmitting from the first transceiver to the second transceiver at least the minimum number of symbols, and transmitting a signal from the second transceiver to the first transceiver allowing the first transceiver to exit the initialization state and enter a new initialization state. CenturyLink performs such a method by controlling and operating a DSL system including DSL Customer Premises Equipment and DSL Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards, thereby directly infringing one or more of the method claims of the `068 Patent either literally or under the doctrine of equivalents, resulting in a violation of 35 U.S.C. § 271(a).

- 164. CenturyLink also indirectly infringes the `068 Patent under 35 U.S.C. § 271(b) by actively inducing its customers to use Customer Premises Equipment configured for communication with CenturyLink's Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that results in performance by a customer of some or all of the steps required by method claims of the `068 Patent, while CenturyLink concurrently operates its Service Provider Equipment in a manner that results in performance by CenturyLink of at least a remainder of the steps required by the same method claims of the `068 Patent. The performance of processes falling within the scope of one or more method claims of the `068 Patent, resulting from steps performed by CenturyLink in conjunction with the steps that CenturyLink induces its customers to perform, has caused and will continue to cause direct infringement of method claims of the `068 Patent, either literally or under the doctrine of equivalents.
- 165. CenturyLink has had knowledge of the `068 Patent since at least the filing date of this complaint. Further, CenturyLink possesses specific intent to encourage others, including its DSL customers, to perform some or all of the steps required by method claims of the `068 Patent, resulting in infringement of the '068 Patent, or at the very least is willfully blind to such infringement. CenturyLink encourages its DSL customers to perform some or all of the steps required by certain method claims of the `068 Patent by providing, installing, configuring, supporting, and maintaining Customer Premises Equipment that is then used by customers and end users to communicate with CenturyLink Service Provider Equipment in accordance with the ADSL2 and/or VDSL2 standards in a manner that, in coordination and combination with steps performed by CenturyLink's actions, results in performance of certain method claims of the `068 Patent. In addition, CenturyLink encourages its customers to perform some or all of the steps

required by certain method claims of the `068 Patent by providing instructions to customers on how to install, connect, configure, and use DSL Customer Premises Equipment for communication with CenturyLink Service Provider Equipment in accordance with the ADSL2 and/or standards in a manner that, in coordination and combination with steps performed by CenturyLink's actions, results in performance of certain method claims of the `068 Patent.

166. Intellectual Ventures II has suffered damage as a result of Defendants' infringement of the `068 Patent.

PRAYER FOR RELIEF

WHEREFORE, Intellectual Ventures II respectfully request the following relief:

- (a) A judgment that CenturyLink has infringed the `636 Patent;
- (b) A judgment that CenturyLink has infringed the `695 Patent;
- (c) A judgment that CenturyLink has infringed the `548 Patent;
- (d) A judgment that CenturyLink has infringed the `182 Patent;
- (e) A judgment that CenturyLink has infringed the `912 Patent;
- (f) A judgment that CenturyLink has infringed the `532 Patent;
- (g) A judgment that CenturyLink has infringed the `928 Patent;
- (h) A judgment that CenturyLink has infringed the `601 Patent;
- (i) A judgment that CenturyLink has infringed the `175 Patent;
- (j) A judgment that CenturyLink has infringed the `808 Patent;
- (k) A judgment that CenturyLink has infringed the `991 Patent;
- (l) A judgment that CenturyLink has infringed the `410 Patent;
- (m) A judgment that CenturyLink has infringed the `876 Patent;
- (n) A judgment that CenturyLink has infringed the `473 Patent;
- (o) A judgment that CenturyLink has infringed the `735 Patent;

- (p) A judgment that CenturyLink has infringed the `348 Patent;
- (q) A judgment that CenturyLink has infringed the `171 Patent;
- (r) A judgment that CenturyLink has infringed the `545 Patent;
- (s) A judgment that CenturyLink has infringed the `068 Patent;
- (t) A judgment that Intellectual Ventures II be awarded all appropriate damages under 35 U.S.C. § 284 for Defendants' past infringement of the `636, `695, `548, `182, `912, `532, `928, `601, `175, `808, `991, `410, `876, `473, `735, `348, `171, `545, and `068 Patents up until the date such judgment is entered, including interest and costs;
- (u) A judgment for on-going royalties for any continuing or future infringement of any of the asserted Patents;
- (v) that CenturyLink be declared to have willfully infringed at least the `548, `182, and `912 patents and that damages be trebled pursuant to 35 U.S.C. § 284;
- (w) that this case be declared exceptional within the meaning of 35 U.S.C. § 285 and that Intellectual Ventures II be awarded its reasonable attorneys' fees, costs, and expenses that it incurs in prosecuting this action; and
- (x) that Intellectual Ventures II be awarded such further relief at law or in equity as the Court deems just and proper.

DEMAND FOR JURY TRIAL

Intellectual Ventures II hereby demand trial by jury on all claims and issues so triable.

DATED: February 8, 2013 Respectfully submitted,

/s/ Jeffrey B. Plies

Signature on file with the U.S. District Clerk

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