

Plaintiff Saint Lawrence Communications LLC (“St. Lawrence” or “Plaintiff”) hereby submits this Complaint against Defendants ZTE Corporation, ZTE USA, Inc., and ZTE (TX) Inc. (collectively “ZTE” or “Defendants”) and states as follows:

THE PARTIES

1. St. Lawrence is a Texas limited liability company, having a principal place of business at 2400 Dallas Parkway, Suite 200, Plano, Texas 75093.

2. On information and belief, Defendant ZTE Corporation is a corporation organized and existing under the laws of the People’s Republic of China, having a principal place of business at ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong Province, People’s Republic of China 518057.

3. On information and belief, Defendant ZTE USA, Inc. is a corporation organized and existing under the laws of New Jersey, having a principal place of business at 2425 North Central Expressway, Suite 600, Richardson, Texas 75080.

4. On information and belief, Defendant ZTE (TX) Inc. is a corporation organized and existing under the laws of Texas, having a principal place of business at 2500 Dallas Parkway, Plano, Texas 75093.

JURISDICTION AND VENUE

5. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 101 *et seq.*

6. Venue is proper in this federal district pursuant to 28 U.S.C. §§1391(b)-(c) and 1400(b) in that Defendants have done business in this District, have committed acts of infringement in this District, and continue to commit acts of infringement in this District, entitling St. Lawrence to relief.

SUMMARY

7. VoiceAge Corporation (“VoiceAge”) has been a pioneer in speech and audio compression technologies since its creation in 1999. VoiceAge is widely recognized as the world’s leader in developing cutting-edge technologies for wideband, low bit rate speech and audio compression.¹ For example, VoiceAge provided the core technologies for at least nine international speech and audio standards-based codecs used in both wireless and wireline markets and applications. VoiceAge’s patented technologies have won every international audio compression standard to which they have been submitted during the last thirteen years, including to the Third Generation Partnership Project (“3GPP”), 3GPP2, the International Telecommunications Union (“ITU”), the European Telecommunications Standards Institute (“ETSI”), and the Motion Picture Experts Group (“MPEG”) of the International Organization for Standardization (“ISO”).

8. One of the international standards based on the patented technologies of VoiceAge is the Adaptive Multi-Rate-Wideband (“AMR-WB”) standard for wideband speech. AMR-WB is a wideband speech coding standard which, among other features, provides significantly improved speech quality at a wider speech bandwidth when compared to narrowband speech coding. AMR-WB is codified as an international standard, including as G.722.2, which was promulgated as a standard speech codec by the ITU Telecommunication Standardization Sector (“ITU-T”) as the “Wideband coding of speech at around 16 kbit/s using Adaptive Multi-Rate Wideband (AMR-WB).” G.722.2 AMR-WB is the same codec as the 3GPP AMR-WB speech codec, also known as 3GPP TS 26.190.²

¹ VoiceAge was also a leader in narrow-band codecs and innovation.

² There have been numerous versions or releases of 3GPP TS 26.190 to date, but each of these practices VoiceAge’s patented technologies.

9. Several speech codecs competed to serve as the foundation for AMR-WB before the standard was officially adopted. VoiceAge's competitors included candidate codecs developed by such industry heavyweights as Ericsson, Motorola, Texas Instruments, and a consortium comprised of France Telecom, Deutsche Telecom, Nortel Networks, and Siemens.³ The selection process was rigorous and extensive, involving numerous experiments covering all applications defined for AMR-WB. During the testing, the VoiceAge codec was the only codec to have no failures in any test condition. The VoiceAge codec was the superior codec with respect to speech quality, technical considerations, and test results, and was the codec chosen to be the official AMR-WB standard. VoiceAge had several patent families, each of which issued prior to the adoption of the standard, and which are essential to the AMR-WB standard.⁴ Through the processes regularly managed by the W-CDMA patent pool, each patent was also independently evaluated by the International Patent Evaluation Consortium (IPEC) and determined to be essential to the standard. This evaluation by IPEC was conducted by an Evaluation Panel comprising a lead Evaluator and two Assistant Evaluators (all three are patent attorneys). The IPEC output documentation consisted of a detailed report of the patent essentiality determination including claim charts and an IPEC certificate of essentiality.

10. The AMR-WB standardized codec serves a variety of important, growing markets and applications including, but not limited to, high-definition voice services ("HD Voice") in wireless telephony, content for media audio, and mobile voice over internet protocol ("VoIP"). Indeed, in the mobile phone market, HD Voice is the commercial name for the AMR-WB codec. HD Voice is a ground-breaking development in mobile phone technology, as it overcomes the limitations of the 300-3400 Hz voiceband traditionally used in mobile telephony; AMR-WB

³ VoiceAge worked with Nokia during the standard-selection process.

⁴ VoiceAge also had patents essential to AMR-WB standard issued in numerous international jurisdictions.

extends audio bandwidth to 50-7000 Hz, materially improving intelligibility over the narrow-band codec prevalent in mobile telephony.

11. There are numerous benefits to the users of HD Voice. These include, but are not limited to, the following:

- Sound quality is greatly improved;
- It is easier to recognize voices and comprehend accented speech;
- It is easier to distinguish confusing or similar sounds, such as between ‘s’ and ‘f’;
- It is easier to hear faint voices and to understand speakers in environments in which multiple speakers are speaking at the same time;
- Listening is easier and more life-like, resulting in less “listener fatigue” and reducing miscommunications and misunderstandings;
- It is easier to understand speakers who use a speakerphone or who are in the presence of background noise; and
- It is easier to distinguish and differentiate between multiple voices on a single call.

12. In part, due to benefits like these, deployment of HD Voice is accelerating rapidly, both in the United States and globally. In the United States, T-Mobile, Sprint, Verizon Wireless and AT&T have launched and support HD Voice through the AMR-WB codec, with other carriers announcing plans to do the same later this year. As of March of 2014, at least 329 different mobile phones support HD Voice. ZTE actively manufactures, imports, markets and sells HD Voice phones; without the AMR-WB codec developed by VoiceAge, ZTE would be unable to manufacture, import, market or sell a single HD Voice phone.

13. Like other manufacturers and vendors who have chosen to implement HD Voice, ZTE has been given permission to use the HD Voice logo.⁵ The license agreement governing use of that HD Voice logo unambiguously requires the use of the AMR-WB codec. For example, the license agreement mandates that the “minimum requirements for mobile HD Voice devices” include “[s]upporting the AMR-WB codec.”⁶

⁵ See <http://www.gsma.com/network2020/hd-voice/ecosystem/>

⁶ See GSMA’s HD Voice Logo License Agreement, Annex C-Version 1.0, at Annex C2 (“Minimum Requirements for Mobile HD Voice devices”), p.5.

14. As HD Voice began to proliferate across the United States and internationally, VoiceAge partnered under an agreement with St. Lawrence to protect and license its patented inventions and intellectual property. ZTE was aware of the patents asserted here prior to the filing of this Complaint, including through the following:

- public information about these patents, the AMR-WB standard, and licenses of these patents;
- pending lawsuits in Germany against Deutsche Telekom and Vodafone filed by an affiliate of St. Lawrence (St. Lawrence Communications GmbH); and
- correspondence between the affiliates of Defendants and St. Lawrence which, among other things, directed Defendants' affiliate to a St. Lawrence website that identifies the patents asserted in this Complaint by number and further claims these patents are essential to the AMR-WB standard.

ZTE is not licensed to the patents asserted in this Complaint, yet ZTE knowingly, actively, and lucratively practices and induces others to practice the patents.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 6,795,805

15. On September 21, 2004, the United States Patent and Trademark Office (“USPTO”) duly and legally issued United States Patent No. 6,795,805 (“the ’805 Patent”), entitled “Periodicity Enhancement in Decoding Wideband Signals.” St. Lawrence holds all rights, title, and interest in and to the ’805 Patent.

16. Upon information and belief, ZTE has infringed directly and continues to infringe directly the ’805 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products practicing the AMR-WB Standard (“ZTE HD Voice phones”). ZTE’s infringing products include at least the HD Voice phones offered for sale in the United States including, but not limited to the following: ZTE Speed, Boost Max by ZTE,

ZTE Warp Sync, Boost Warp 4G by ZTE, Boost Force by ZTE, Blade V880, Crescent, Era, F160 Atlanta, Grand X, Grand X IN, Orbit, R252, Kis Pro, Skate, Smart Netphone 701, and Tania, TMN smart A15. These phones are among the larger range of ZTE HD Voice phones, each of which practices the '805 patent. As alleged above, ZTE had actual notice of the patents asserted here and of its infringement of these patents. In addition to its direct infringement, ZTE has been and is now indirectly infringing by way of inducing infringement and/or contributing to the infringement of the method claims of the '805 patent in the State of Texas, in this judicial district, and elsewhere within the United States by, among other things, making, using, licensing, selling, offering for sale, or importing infringing ZTE HD Voice mobile phones, covered by one or more method claims of the '805 patent, all to the injury of St. Lawrence. In the case of such infringement, the users of the ZTE HD Voice mobile phones are the direct infringers of the '805 patent. ZTE advertises and promotes its ZTE HD Voice Phones on its website.⁷ ZTE provides, makes, uses, licenses, sells, and offers its ZTE HD Voice phones for sale with the specific intent that its customers use those phones in an infringing manner.⁸ ZTE sells or offers to sell its HD Voice phones for use in practicing St. Lawrence's patented processes, and those HD voice phones are material to practicing St. Lawrence's invention. The HD voice features have no substantial non-infringing uses, and are known by ZTE to be especially made or especially adapted for use in an infringement of St. Lawrence's patents by complying with the AMR-WB standard. ZTE's acts of

⁷ See, e.g., <http://www.zteusa.com/zte-warp>; see also <http://www.boostmobile.com/shop/phones/zte-speed/> (using the HD Voice logo in connection with the ZTE Speed phone).

⁸ See, e.g., <http://www.gsma.com/network2020/hd-voice/ecosystem/> (listing HTC as part of the HD Voice ecosystem).

infringement have been willful, deliberate, and in reckless disregard of St. Lawrence's patent rights.

17. The acts of infringement by Defendants have caused damage to St. Lawrence, and St. Lawrence is entitled to recover from Defendants the damages sustained by St. Lawrence as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of St. Lawrence's exclusive rights under the '805 Patent by Defendants has damaged and will continue to damage St. Lawrence.

18. Upon information and belief, Defendants actually knew of, or were willfully blind to, the existence of the '805 Patent, yet Defendants continue to infringe said patent. The infringement of the '805 Patent by Defendants is willful and deliberate, and with full knowledge of the patent, entitling St. Lawrence to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 6,807,524

19. On October 19, 2004, the USPTO duly and legally issued United States Patent No. 6,807,524 ("the '524 Patent"), entitled "Perceptual Weighting Device and Method for Efficient Coding of Wideband Signals." St. Lawrence holds all rights, title, and interest in and to the '524 Patent.

20. Upon information and belief, ZTE has infringed directly and indirectly and continues to infringe directly and indirectly the '524 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products practicing the AMR-WB Standard. ZTE's infringing products include at least the HD Voice phones offered for sale in the United States including, but not limited to but not limited to the following: ZTE Speed, Boost Max by ZTE, ZTE Warp Sync, Boost Warp 4G by ZTE, Boost Force by ZTE, Blade V880, Crescent, Era, F160 Atlanta, Grand X, Grand X IN, Orbit, R252, Kis Pro, Skate, Smart

Netphone 701, and Tania, TMN smart A15. These phones are among the larger range of ZTE HD Voice phones, each of which practices the '524 patent. As alleged above, ZTE had actual notice of the patents asserted here and of its infringement of these patents. In addition to its direct infringement, ZTE has been and is now indirectly infringing by way of inducing infringement and/or contributing to the infringement of the method claims of the '524 patent in the State of Texas, in this judicial district, and elsewhere within the United States by, among other things, making, using, licensing, selling, offering for sale, or importing infringing ZTE HD Voice mobile phones, covered by one or more method claims of the '524 patent, all to the injury of St. Lawrence. In the case of such infringement, the users of the ZTE HD Voice mobile phones are the direct infringers of the '524 patent. ZTE advertises and promotes its ZTE HD Voice Phones on its website.⁹ ZTE provides, makes, uses, licenses, sells, and offers its ZTE HD Voice phones for sale with the specific intent that its customers use those phones in an infringing manner.¹⁰ ZTE sells or offers to sell its HD Voice phones for use in practicing St. Lawrence's patented processes, and those HD voice phones are material to practicing St. Lawrence's invention. The HD voice features have no substantial non-infringing uses, and are known by ZTE to be especially made or especially adapted for use in an infringement of St. Lawrence's patents by complying with the AMR-WB standard. ZTE's acts of infringement have been willful, deliberate, and in reckless disregard of St. Lawrence's patent rights.

⁹ See, e.g., <http://www.zteusa.com/zte-warp>; see also <http://www.boostmobile.com/shop/phones/zte-speed/> (using the HD Voice logo in connection with the ZTE Speed phone).

¹⁰ See, e.g., <http://www.gsma.com/network2020/hd-voice/ecosystem/> (listing HTC as part of the HD Voice ecosystem).

21. The acts of infringement by Defendants have caused damage to St. Lawrence, and St. Lawrence is entitled to recover from Defendants the damages sustained by St. Lawrence as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of St. Lawrence's exclusive rights under the '524 Patent by Defendants has damaged and will continue to damage St. Lawrence.

22. Upon information and belief, Defendants actually knew of, or were willfully blind to, the existence of the '524 Patent, yet Defendants continue to infringe said patent. The infringement of the '524 Patent by Defendants is willful and deliberate, and with full knowledge of the patent, entitling St. Lawrence to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 7,151,802

23. On December 19, 2006, the USPTO duly and legally issued United States Patent No. 7,151,802 ("the '802 Patent"), entitled "High Frequency Content Recovering Method and Device for Over-Sampled Synthesized Wideband Signal." St. Lawrence holds all rights, title, and interest in and to the '802 Patent.

24. Upon information and belief, ZTE has infringed directly and indirectly and continues to infringe directly and indirectly the '802 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products practicing the AMR-WB Standard. ZTE's infringing products include at least the HD Voice phones offered for sale in the United States including, but not limited to but not limited to the following: ZTE Speed, Boost Max by ZTE, ZTE Warp Sync, Boost Warp 4G by ZTE, Boost Force by ZTE, Blade V880, Crescent, Era, F160 Atlanta, Grand X, Grand X IN, Orbit, R252, Kis Pro, Skate, Smart Netphone 701, and Tania, TMN smart A15. These phones are among the larger range of ZTE HD

Voice phones, each of which practices the '802 patent. As alleged above, ZTE had actual notice of the patents asserted here and of its infringement of these patents.

25. The acts of infringement by Defendants have caused damage to St. Lawrence, and St. Lawrence is entitled to recover from Defendants the damages sustained by St. Lawrence as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of St. Lawrence's exclusive rights under the '802 Patent by Defendants has damaged and will continue to damage St. Lawrence.

26. Upon information and belief, Defendants actually knew of, or were willfully blind to, the existence of the '802 Patent, yet Defendants continue to infringe said patent. The infringement of the '802 Patent by Defendants is willful and deliberate, and with full knowledge of the patent, entitling St. Lawrence to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 7,260,521

27. On August 21, 2007, the USPTO duly and legally issued United States Patent No. 7,260,521 ("the '521 Patent"), entitled "Method and Device for Adaptive Bandwidth Pitch Search in Coding Wideband Signals." St. Lawrence holds all rights, title, and interest in and to the '521 Patent.

28. Upon information and belief, ZTE has infringed directly and continues to infringe directly the '521 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products practicing the AMR-WB Standard. ZTE's infringing products include at least the HD Voice phones offered for sale in the United States including, but not limited to but not limited to the following: ZTE Speed, Boost Max by ZTE, ZTE Warp Sync, Boost Warp 4G by ZTE, Boost Force by ZTE, Blade V880, Crescent, Era, F160 Atlanta, Grand X, Grand X IN, Orbit, R252, Kis Pro, Skate, Smart Netphone 701, and Tania, TMN

smart A15. These phones are among the larger range of ZTE HD Voice phones, each of which practices the '521 patent. As alleged above, ZTE had actual notice of the patents asserted here and of its infringement of these patents. In addition to its direct infringement, ZTE has been and is now indirectly infringing by way of inducing infringement and/or contributing to the infringement of the method claims of the '521 patent in the State of Texas, in this judicial district, and elsewhere within the United States by, among other things, making, using, licensing, selling, offering for sale, or importing infringing ZTE HD Voice mobile phones, covered by one or more method claims of the '521 patent, all to the injury of St. Lawrence. In the case of such infringement, the users of the ZTE HD Voice mobile phones are the direct infringers of the '521 patent. ZTE advertises and promotes its ZTE HD Voice Phones on its website.¹¹ ZTE provides, makes, uses, licenses, sells, and offers its ZTE HD Voice phones for sale with the specific intent that its customers use those phones in an infringing manner.¹² ZTE sells or offers to sell its HD Voice phones for use in practicing St. Lawrence's patented processes, and those HD voice phones are material to practicing St. Lawrence's invention. The HD voice features have no substantial non-infringing uses, and are known by ZTE to be especially made or especially adapted for use in an infringement of St. Lawrence's patents by complying with the AMR-WB standard. ZTE's acts of infringement have been willful, deliberate, and in reckless disregard of St. Lawrence's patent rights

29. The acts of infringement by Defendants have caused damage to St. Lawrence, and St. Lawrence is entitled to recover from Defendants the damages sustained by St. Lawrence as a

¹¹ See, e.g., <http://www.zteusa.com/zte-warp>; see also <http://www.boostmobile.com/shop/phones/zte-speed/> (using the HD Voice logo in connection with the ZTE Speed phone).

¹² See, e.g., <http://www.gsma.com/network2020/hd-voice/ecosystem/> (listing HTC as part of the HD Voice ecosystem).

result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of St. Lawrence's exclusive rights under the '521 Patent by Defendants has damaged and will continue to damage St. Lawrence.

30. Upon information and belief, Defendants actually knew of, or were willfully blind to, the existence of the '521 Patent, yet Defendants continue to infringe said patent. The infringement of the '521 Patent by Defendants is willful and deliberate, and with full knowledge of the patent, entitling St. Lawrence to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 7,191,123

31. On March 13, 2007, the USPTO duly and legally issued United States Patent No. 7,191,123 ("the '123 Patent"), entitled "Gain-Smoothing in Wideband Speech and Audio Signal Decoder." St. Lawrence holds all rights, title, and interest in and to the '123 Patent.

32. Upon information and belief, ZTE has infringed directly and indirectly and continues to infringe directly and indirectly the '123 Patent. The infringing acts include, but are not limited to, the manufacture, use, sale, importation, and/or offer for sale of products practicing the AMR-WB Standard. ZTE's infringing products include at least the HD Voice phones offered for sale in the United States including, but not limited to but not limited to the following: ZTE Speed, Boost Max by ZTE, ZTE Warp Sync, Boost Warp 4G by ZTE, Boost Force by ZTE, Blade V880, Crescent, Era, F160 Atlanta, Grand X, Grand X IN, Orbit, R252, Kis Pro, Skate, Smart Netphone 701, and Tania, TMN smart A15. These phones are among the larger range of ZTE HD Voice phones, each of which practices the '123 patent. As alleged above, ZTE had actual notice of the patents asserted here and of its infringement of these patents. In addition to its direct infringement, ZTE has been and is now indirectly infringing by way of inducing infringement and/or contributing to the infringement of the method claims of the '123 patent in the State of

Texas, in this judicial district, and elsewhere within the United States by, among other things, making, using, licensing, selling, offering for sale, or importing infringing ZTE HD Voice mobile phones, covered by one or more method claims of the '123 patent, all to the injury of St. Lawrence. In the case of such infringement, the users of the ZTE HD Voice mobile phones are the direct infringers of the '123 patent. ZTE advertises and promotes its ZTE HD Voice Phones on its website.¹³ ZTE provides, makes, uses, licenses, sells, and offers its ZTE HD Voice phones for sale with the specific intent that its customers use those phones in an infringing manner.¹⁴ ZTE sells or offers to sell its HD Voice phones for use in practicing St. Lawrence's patented processes, and those HD voice phones are material to practicing St. Lawrence's invention. The HD voice features have no substantial non-infringing uses, and are known by ZTE to be especially made or especially adapted for use in an infringement of St. Lawrence's patents by complying with the AMR-WB standard. ZTE's acts of infringement have been willful, deliberate, and in reckless disregard of St. Lawrence's patent rights.

33. The acts of infringement by Defendants have caused damage to St. Lawrence, and St. Lawrence is entitled to recover from Defendants the damages sustained by St. Lawrence as a result of Defendants' wrongful acts in an amount subject to proof at trial. The infringement of St. Lawrence's exclusive rights under the '123 Patent by Defendants has damaged and will continue to damage St. Lawrence.

¹³ See, e.g., <http://www.zteusa.com/zte-warp>; see also <http://www.boostmobile.com/shop/phones/zte-speed/> (using the HD Voice logo in connection with the ZTE Speed phone).

¹⁴ See, e.g., <http://www.gsma.com/network2020/hd-voice/ecosystem/> (listing HTC as part of the HD Voice ecosystem).

34. Upon information and belief, Defendants actually knew of, or were willfully blind to, the existence of the '123 Patent, yet Defendants continue to infringe said patent. The infringement of the '123 Patent by Defendants is willful and deliberate, and with full knowledge of the patent, entitling St. Lawrence to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

JURY DEMAND

35. St. Lawrence hereby demands a trial by jury on all issues.

PRAYER FOR RELIEF

WHEREFORE, St. Lawrence requests entry of judgment in its favor and against Defendants as follows:

- a. A declaration that Defendants have infringed and are infringing the '805, '524, '802,'521, and '123 Patents;
- b. An award of damages to St. Lawrence arising out of Defendants' infringement of the '805, '524, '802,'521, and '123 Patents, including enhanced damages pursuant to 35 U.S.C. § 284, together with prejudgment and post-judgment interest, in an amount according to proof;
- c. An award of attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law;
- d. An award to St. Lawrence of its costs; and
- e. such other and further relief, whether legal, equitable, or otherwise, to which St. Lawrence may be entitled or which this Court may order.

Dated: March 10, 2015

Respectfully submitted,

/s/ Demetrios Anaipakos

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