

plans to practice Moskowitz's patented inventions. Many of Blue Spike's patents are foundational to today's robust markets for content, which grew into their present form only after using Blue Spike's technology to catalogue, manage, monitor, and monetize that content.

3. On information and belief, Defendant Miranda Technologies Partnership (f/k/a Miranda Technologies, Inc.) is a corporation organized and existing under the laws of Canada with its principal place of business at 3499, Douglas-B.-Floreani, Montreal, Quebec, Canada H4S 2C6. On information and belief, Miranda Technologies Partnership is a wholly owned subsidiary of Belden Inc.

4. On information and belief, Defendant Belden Inc. is a corporation organized and existing under the laws of Delaware with its principal place of business at 7733 Forsyth Boulevard, Suite 800, St. Louis, Missouri 63105. Belden Inc. is registered in the state of Texas and may be served through its registered agent Corporation Service Company d/b/a CSC – Lawyers Incorporating Service Company at 211 E. 7th Street, Suite 620, Austin, Texas 78701.

JURISDICTION AND VENUE

5. This lawsuit is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §101 *et seq.* The Court has subject-matter jurisdiction pursuant to 28 U.S.C. §§1331, 1332, 1338(a), and 1367.

6. The Court has personal jurisdiction over Defendant for at least four reasons: (1) Defendant has committed acts of patent infringement and contributed to and induced acts of patent infringement by others in this District and elsewhere in Texas; (2) Defendant is registered to do business in Texas and regularly does business or solicits

business in the District and in Texas; (3) Defendant engages in other persistent courses of conduct and derives substantial revenue from products and/or services provided to individuals in the District and in Texas including its products and/or services provided to Beers Enterprises, Inc. and News-Press and Gazette Company (NPG); and (4) Defendant has purposefully established substantial, systematic, and continuous contacts with the District and should reasonably expect to be haled into court here. Thus, the Court's exercise of jurisdiction over Defendant will not offend traditional notions of fair play and substantial justice.

7. Venue is proper in this judicial district under 28 U.S.C. §§1391(b)–(c) and 1400(b) because Defendant does business in the State of Texas, Defendant has committed acts of infringement in Texas and in the District, a substantial part of the events or omissions giving rise to Blue Spike's claims happened in the District, and Defendant is subject to personal jurisdiction in the District.

FACTUAL BACKGROUND

A. Moskowitz's History

8. The owners of art, music, films, and other creations who want to sell and license their work in digital form over the Internet need an efficient way to manage, monitor, and monetize it. Blue Spike founder Scott Moskowitz pioneered—and continues to invent—technology that makes such management possible, and which has parlayed with equal importance into other industries.

9. Moskowitz, who earned two degrees *cum laude* from the Wharton School of Finance and Commerce at the University of Pennsylvania, is an inventor of more than 66 U.S. Patents, including the Patent-in-Suit.

10. In 1992, Moskowitz entered the entertainment industry by doing agency work in Japan for a large U.S. wholesaler of music-related products.

11. In 1993, Moskowitz filed his first U.S. digital-content-management patent application. That year, he also founded the software start-up The Dice Company, which would become widely recognized as a leader in digital watermarking. Since that first patent, Moskowitz has continued to create patented inventions in the field of information management and security at a prodigious pace. His goal from the outset has been to commercialize his patented inventions.

12. Moskowitz founded Blue Spike, Inc. in November 1997. Just over two years later, he filed his first patent application related to signal recognition technology, which issued as the '472 Patent. In describing this pioneering technology, Moskowitz coined the term "signal abstracting," which enhanced the ability to catalogue, archive, identify, authorize, transact, and monitor the use and/or application of signals, such as images (for example, photographs, paintings, and scanned fingerprints), audio (for example, songs, jingles, commercials, movies soundtracks, and their versions), video (for example, videos, television shows, commercials, and movies), and multimedia works. This revolutionary technology greatly improves the efficiency and speed of monitoring, analyzing, and identifying signals as perceived, as well as enabling the optimal compression of the signals and their associated signal abstracts for memory accommodation.

13. Moskowitz's status as a pioneer in this new field between cryptography and signal analysis is evident from the United States Patent and Trademark Office's categorization of his patent applications. The USPTO was initially puzzled about how to classify his early inventions, as the then-existing patent categories in cryptography and signal

analysis were, by themselves, inadequate. The USPTO therefore created a new classification for his groundbreaking inventions: classification 713, subclass 176, called “Authentication by digital signature representation or digital watermark.”

14. The National Security Agency (NSA) even took interest in his work after he filed one of his early patent applications. The NSA made the application classified under a “secrecy order” while it investigated his pioneering innovations and their impact on national security.

15. As an industry trailblazer, Moskowitz has been an active author and public figure on digital-watermarking and signal-recognition technologies since their emergence. A 1995 *New York Times* article—titled “TECHNOLOGY: DIGITAL COMMERCE; 2 plans for watermarks, which can bind proof of authorship to electronic works”—recognized Moskowitz’s The Dice Company as one of two leading software start-ups in this newly created field. *Forbes* also interviewed Moskowitz as an expert for “Cops Versus Robbers in Cyberspace,” a September 9, 1996 article about the emergence of digital watermarking and rights-management technology. He has also testified before the Library of Congress regarding the Digital Millennium Copyright Act.

16. He has spoken to the RSA Data Security Conference, the International Financial Cryptography Association, Digital Distribution of the Music Industry, and many other organizations about the business opportunities that digital watermarking creates. Moskowitz also authored *So This Is Convergence?*, the first book of its kind about secure digital-content management. This book has been downloaded over a million times online and has sold thousands of copies in Japan, where Shogakukan published it under the name *Denshi Skashi*, literally “electronic watermark.” Moskowitz was asked to author the

introduction to *Multimedia Security Technologies for Digital Rights Management*, a 2006 book explaining digital-rights management. Moskowitz authored a paper for the 2002 International Symposium on Information Technology, titled “What is Acceptable Quality in the Application of Digital Watermarking: Trade-offs of Security, Robustness and Quality.” He also wrote an invited 2003 article titled “Bandwidth as Currency” for the *IEEE Journal*, among other publications.

17. Moskowitz is a senior member of the Institute of Electrical and Electronics Engineers (IEEE), a member of the Association for Computing Machinery, and the International Society for Optics and Photonics (SPIE). As a senior member of the IEEE, Moskowitz has peer-reviewed numerous conference papers and has submitted his own publications.

18. Moskowitz has been at the forefront of industry-based tests—such as the MUSE Embedded Signaling Tests, Secure Digital Music Initiative (“SDMI”), and various tests by performance-rights organizations including ASCAP and BMI, as well as Japan’s Nomura Research Institute.

19. Moskowitz has negotiated projects to incorporate his technologies with leaders in a gamut of industries. For example, Moskowitz worked with EMI, Warner Brothers, and Universal Music Group on music-release tracking systems; with AIG on insurance and financial services; with IBM on watermarking its software and managing movie scripts; and with Juniper Networks on measuring and provisioning the bandwidth used on its routers. Blue Spike is also registered with the Federal Government’s Central Contractor Registry (managed under the System for Award Management, “SAM”) and participated in the Department of Defense Small Business Innovative Research (SBIR) program.

20. Moskowitz and his companies have always practiced or had business plans to practice his patented inventions. He has worked extensively to ensure that his technology's powerful and patented Giovanni® suite of media security technologies can be licensed to all. Before the industry understood where digital management of content was heading, Moskowitz believed that copyright management was an invaluable element for dramatically expanding the business of music, emphasizing that security must not be shrouded in secrecy and that his patented techniques were the strongest to do so.

21. Moskowitz and Blue Spike continued to produce new versions of its popular digital-watermarking tools. Under Moskowitz's control, Blue Spike also developed its unique Scrambling technologies, which continue to gain currency. Moskowitz and Blue Spike rolled out its "end-to-end" solution for music security. Music encoded with Blue Spike's watermark had both security and CD-quality sound, even when integrated with text, image, and video content. To this day, Moskowitz and Blue Spike are working with artists to help them manage and secure their valuable artistic contributions from its office in Tyler, Texas.

B. Patent-in-Suit

22. As content becomes increasingly profitable and prevalent in the U.S. and around the globe, pirates will continue to proliferate and use increasingly sophisticated technologies to steal and illegally copy others' work, especially those works that are digitally formatted or stored. The Patent-in-Suit comprise, in part, what Moskowitz has coined "signal abstracting," which encompasses techniques, among others, also known as "signal fingerprinting," "acoustic fingerprinting," or "robust hash functions." These are among the most effective techniques available for combating piracy, which are

completely undetectable to the thief, yet still enable content owners to easily search through large amounts of data to identify unauthorized copies of their works.

23. Broadly speaking, “signal abstracting” identifies digital information and material—including video, audio, graphics, multimedia, and text—based solely on the perceptual characteristics of the material itself. If desired, however, the abstract need not be static, and other information or heuristics can be used to augment the perceptual characteristics, resulting in a more robust abstract. In contrast, other technologies (such as digital watermarking) embed additional information or messages into the original source material to enable traceability of the subsequently watermarked content, much like an audit trail or the serial number on a dollar bill. When a pirate attempts to remove embedded information or messages, ideally the quality of the content may be degraded, making the tampered copies unusable or of such poor quality that they have little commercial value. Signal abstracting avoids watermarking’s vulnerabilities by leaving the source signal unchanged and identifying the signal’s unique features or perceptual characteristics.

24. Content owners can also then monitor and analyze distribution channels, such as the Internet, radio broadcasts, television broadcasts, and other media sources, to determine whether any content from those sources has the same abstract as their catalogued works. Unauthorized versions of copies of content may then be successfully identified. With the unauthorized copies identified, the content owner can then restrict access, compel payment for authorized use, and develop better intelligence about content markets and those consumers with a willingness to pay. In some cases, new versions of the content can be observed and analyzed, creating more robust abstracts or new abstracts

entirely, informing owners and content aggregators about new channels or new opportunities for consumption of their content.

25. Similarly, content recognition applications running on mobile devices, smartphones, and tablets can use abstracts to identify content for users who would like to know what it is they are listening to (such as applications that just identify content) or would like to know more about that content (such as applications that are now popularly known as “second screen applications,” which allow a television audience to identify and interact with the content they are consuming, whether it be, for example, TV shows, movies, music, or video games). Once identified by an abstract, songwriters, for example, can be given lyrics, or budding video producers can be provided related versions or background on a video identified. Thus, value add in markets can be adjusted to meet the specific needs and consumption patterns of users.

26. This idea of “signal abstracting” applies equally to biometric identification and today’s security systems, such as fingerprint, facial, and optic systems that analyze, catalogue, monitor, and identify a person’s biometric features. Once an image is created from the features of these biometric identifiers, signal abstracting can be used to optimally compress the signal and its associated abstract, resulting in less memory usage and increased accuracy and speed of signal analysis and identification. Further, signal abstracts of the biometric information can be secured independently; this means that authentication and verification of the identifying abstract do not compromise the original information. This separation of the abstracts from the original source material enables more secure environments, such as those dealing with the security of a person’s biometrics. Thus, fingerprint scanners are made more secure, as are systems requiring

physical scans of a person's body. The recent evolution to smaller and cheaper processors and memory storage has led to the proliferation of these biometric-identification systems, which rely on the inventions of the Patent-in-Suit to be implemented.

27. The Patent-in-Suit is a prime example of Moskowitz's pioneering contributions to signal recognition technology.

C. The Accused Products and Services

28. Defendant designs, develops, and manufactures hardware and software solutions for television and broadcast facilities. Defendant makes, uses, offers for sale and/or imports into the U.S. products, systems and/or services including, but not limited to, its iControl Audio/Video Fingerprints, iControl Playout, ADX-3981, AMX-3981, EAP-3101, EAP-3901, FRS-3901, HCO-1822, HCO-3901, HLP-1801, XVP-3901, XVP-3901-DPI, XVP-3901-FS, XVP-3901-UC, and XVP-3901-XC products ("Accused Products"), which infringe one more claims of the Patent-in-Suit.

29. Defendant has not sought or obtained a license for any of Blue Spike's patented technologies.

30. Yet Defendant is using methods, devices, and systems taught by Blue Spike's Patent-in-Suit.

31. Ironically, although Defendant does not have permission to use Blue Spike's Patent-in-Suit, it is using those very same technologies to track and collect payment for the use of intellectual property by others.

**COUNT 1:
INFRINGEMENT OF U.S. PATENT NO. 8,712,728**

32. Blue Spike incorporates by reference the allegations in paragraphs 1 through 31 of this complaint.

33. Blue Spike, LLC is assignee of the '728 Patent, titled "Method and Device for Monitoring and Analyzing Signals," and has ownership of all substantial rights in the '728 Patent, including the rights to grant sublicenses, to exclude others from using it, and to sue and obtain damages and other relief for past and future acts of patent infringement. The '728 Patent is valid, is enforceable, and was duly and legally issued on April 29, 2014.

34. Without a license or permission from Blue Spike, Defendant has infringed and continues to infringe on one or more claims of the '728 Patent—directly, contributorily, or by inducement—by importing, making, using, offering for sale, or selling products and devices that embody the patented invention, including, without limitation, one or more of the Accused Products, in violation of 35 U.S.C. §271.

35. Defendant has been and now is indirectly infringing by way of inducing infringement by others and/or contributing to the infringement by others of the '728 Patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling, without license or authority, products for use in systems that fall within the scope of one or more claims of the '728 Patent.

36. Such products include, without limitation, one or more of the Accused Products, including Defendants accused iControl products. Such products are used to monitor and analyze signals and detect, collect, and process fingerprint data. Such products have no

substantial non-infringing uses and are for use in systems that infringe the '728 Patent. Defendant has sold its infringing products and/or services to its clients including Beer Enterprises, Inc. and NPG. Beer Enterprises, Inc. has implemented and used infringing products in the state of Texas in its video distribution and fiber switching services and systems for television networks, local broadcast stations, producers, and distributors. NPG has implemented and used infringing products in the state of Texas in its television broadcast infrastructure to control and monitor broadcasts.

37. By making, using, importing offering for sale, and/or selling such products, Defendant injured Blue Spike and is thus liable to Blue Spike for infringement of the '728 Patent under 35 U.S.C. §271. Those whom Defendant induces to infringe and/or whose infringement to which Defendant contributes are the end users of the Accused Products. Defendant had knowledge of the '728 Patent at least as early as the service of this complaint and is thus liable for infringement of one or more claims of the '728 Patent by actively inducing infringement and/or is liable as contributory infringer of one or more claims of the '728 Patent under 35 U.S.C. § 271.

38. Defendant's acts of infringement of the '728 Patent have caused damage to Blue Spike, and Blue Spike is entitled to recover from Defendant the damages sustained as a result of Defendant's wrongful acts in an amount subject to proof at trial pursuant to 35 U.S.C. §271. Defendant's infringement of Blue Spike's exclusive rights under the '728 Patent will continue to damage Blue Spike, causing it irreparable harm, for which there is no adequate remedy at law, warranting an injunction from the Court.

39. The infringement of the Patent-in-Suit by Defendant has been willful and continues to be willful. Defendant previously employed highly skilled patent

infringement litigation attorneys, who as part of their defense of Defendant in a previously lawsuit performed a search of on the USPTO's website to ascertain any child applications claiming priority to related patents previously asserted. On information and belief, Defendant knew the Patent-in-suit was pending at that time.

40. On information and belief, Defendant has at least had constructive notice of the '728 Patent by operation of law.

REQUEST FOR RELIEF

Blue Spike incorporates each of the allegations in paragraphs 1 through 39 above and respectfully asks the Court to:

- (a) enter a judgment that Defendant has directly infringed, contributorily infringed, and/or induced infringement of one or more claims of each of the Patent-in-Suit;
- (b) enter a judgment awarding Blue Spike all damages adequate to compensate it for Defendant's infringement of, direct or contributory, or inducement to infringe, the Patent-in-Suit, including all pre-judgment and post-judgment interest at the maximum rate permitted by law;
- (c) enter a judgment awarding treble damages pursuant to 35 U.S.C. §284 for Defendant's willful infringement of one or more of the Patent-in-Suit;
- (d) issue a preliminary injunction and thereafter a permanent injunction enjoining and restraining Defendant, its directors, officers, agents, servants, employees, and those acting in privity or in concert with them, and their subsidiaries, divisions, successors, and assigns, from further acts of infringement, contributory infringement, or inducement of infringement of the Patent-in-Suit;

- (c) enter a judgment requiring Defendant to pay the costs of this action, including all disbursements, and attorneys' fees as provided by 35 U.S.C. §285, together with prejudgment interest; and
- (d) award Blue Spike all other relief that the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Blue Spike demands a jury trial on all issues that may be determined by a jury.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document was filed electronically in compliance with Local Rule CV-5(a). As such, this document was served on all counsel who are deemed to have consented to electronic service. Local Rule CV-5(a)(3)(A). Pursuant to Federal Rule of Civil Procedure 5(d) and Local Rule CV-5(d) and (e), all other counsel of record not deemed to have consented to electronic service were served with a true and correct copy of the foregoing by email.

/s/ Randall T. Garteiser
Randall T. Garteiser