

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF FLORIDA
TAMPA DIVISION**

POINTIVO, INC.,
Plaintiff,

v.

5x5 TECHNOLOGIES, INC.,
Defendant.

Civil Action No. _____

**INJUNCTIVE RELIEF AND
JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Pointivo, Inc. (“Pointivo” or “Plaintiff”) files this Complaint against 5x5 Technologies, Inc. (“5x5” or “Defendant”) alleging, based on its own knowledge as to itself and its own actions, and based on information and belief as to all other matters, as follows:

NATURE OF THE ACTION

1. This is a patent infringement action to stop Defendant’s infringement of the following United States Patents (collectively, the “Asserted Patents”) issued by the United States Patent and Trademark Office (“USPTO”):

	U.S. Patent No.	Title	Available At
1	9,460,517	Photogrammetric Methods And Devices Related Thereto	https://ppubs.uspto.gov/pubwebapp/authorize.html?redirect=print/pdfRedirectDownload/9460517
2	9,886,774	Photogrammetric Methods And Devices Related Thereto	https://ppubs.uspto.gov/pubwebapp/authorize.html?redirect=print/pdfRedirectDownload/9886774

	U.S. Patent No.	Title	Available At
3	9,904,867	Systems And Methods For Extracting Information About Objects From Scene Information	https://ppubs.uspto.gov/pubwebapp/authorize.html?redirect=print/pdfRedirectDownload/9904867
4	11,043,026	Systems And Methods For Processing 2D/3D Data For Structures Of Interest In A Scene And Wireframes Generated Therefrom	https://ppubs.uspto.gov/pubwebapp/authorize.html?redirect=print/pdfRedirectDownload/11043026
5	11,935,288	Systems And Methods For Generating Of 3D Information On A User Display From Processing Of Sensor Data For Objects, Components Or Features Of Interest In A Scene And User Navigation Thereof	https://ppubs.uspto.gov/pubwebapp/authorize.html?redirect=print/pdfRedirectDownload/11935288

2. Plaintiff seeks injunctive relief and monetary damages.

PARTIES

3. Plaintiff Pointivo, Inc. is a corporation formed under the laws of Delaware with its registered office address located in Atlanta, Georgia.

4. Defendant 5x5 Technologies, Inc. is a corporation organized under the laws of the State of Florida with a place of business at 360 Central Ave, Suite 800, St. Petersburg, Florida 33701, and may be served with process through its registered agent, TK Registered Agent, Inc., 101 E. Kennedy Blvd., #2700, Tampa, FL 33602.

5. On information and belief, Defendant has directly and/or indirectly

developed, designed, manufactured, distributed, marketed, offered to sell and/or sold infringing products and services in the United States, including in the Middle District of Florida, and otherwise direct infringing activities to this District in connection with their products and services as set forth in this Complaint.

JURISDICTION AND VENUE

6. This is an action for infringement of a United States patent arising under 35 U.S.C. §§ 271, 281, and 284–85, among others. This Court has subject matter jurisdiction of the action under 28 U.S.C. § 1331 and § 1338(a).

7. Venue is proper against Defendant in this District pursuant to 28 U.S.C. § 1400(b) and 1391(c) because it has maintained established and regular places of business in this District, has transacted business in this District, and has committed acts of patent infringement in the District from those regular and established places of business. *See In re: Cray Inc.*, 871 F.3d 1355, 1362-1363 (Fed. Cir. 2017).

8. Defendant offers products and services, including through the use of the Accused Products, and conducts business in this District.

9. Defendant is subject to this Court's specific and general personal jurisdiction under due process due at least to Defendant's substantial business in this judicial district, including: (i) at least a portion of the infringements alleged herein; (ii) regularly transacting, doing, and/or soliciting business, engaging in other persistent courses of conduct, or deriving substantial revenue from goods and

services provided to individuals in Florida and in this District; (iii) having an interest in, using or possessing real property in Florida and this District; (iv) and having and keeping personal property in Florida and in this District.

10. Specifically, Defendant intends to do and does business in, has committed acts of infringement in, and continues to commit acts of infringement in this District directly, through intermediaries, by contributing to and through inducement of third parties, and offers its products or services, including those accused of infringement here, to customers and potential customers located in this state, including in this District.

11. On information and belief, Defendant owns, operates, manages, conducts business, and directs and controls the operations and employees of facilities at locations in this District, including, but not limited to, facilities at the following addresses: 360 Central Ave, Suite 800, St. Petersburg, Florida 33701, *Terms & Conditions*, 5X5 TECHNOLOGIES (last visited Feb. 28, 2025), <https://www.5x5.ai/terms-conditions>.

12. Defendant's business specifically depends on employees, exclusive and non-exclusive contractors, agents, and affiliates, etc., being physically present at places in the District, and Defendant affirmatively acted to make permanent operations within this District. *See In re: Cray Inc.*, 871 F.3d 1355 (Fed. Cir. 2017); *In re Cordis Corp.*, 769 F.2d 733, 736 (Fed. Cir. 1985).

13. Defendant commits acts of infringement from this District, including, but not limited to using, installing, testing of the Accused Products, selling and offering to sell the Accused Products, and inducement of third parties to use the Accused Products in an infringing manner.

14. Defendant instructs its employees, agents, and contractors on how to install and use the Accused Products.

POINTIVO'S BUSINESS MODEL AND PLATFORMS

15. Founded in 2014 by Dr. Habib Fathi and Dan Ciprari, Pointivo was established with a mission to address real-world business challenges through advanced computer vision and AI technologies. Since its inception, the company has pioneered AI-driven 3D image analytics, revolutionizing the way assets are inspected, monitored, and managed across various industries.

16. Pointivo has developed a cutting-edge analytics platform powered by proprietary AI and computer vision algorithms, enabling automated, highly accurate 3D asset inspection. The company's technology is often utilized in drone-based inspection services, providing fast and precise measurements, damage assessments, inventory management, budgeting insights, and risk mitigation strategies.

17. Some of Pointivo's flagship innovations include its Tower Analytics and Asset Inspection platforms, which leverage SmartNav digital twin technology to enhance inspection capabilities, offering unparalleled accuracy and automation.

18. A leader in intellectual property and innovation, Pointivo strategically develops and protects key advancements in AI and computer vision. Its patents and pending applications cover a range of breakthroughs, including automated surface boundary extraction in point clouds, 3D object identification, AI-driven wireframe generation, intelligent data capture, and multi-sensor visualization technologies.

19. Today, Pointivo collaborates with innovative Fortune 1000 enterprises, engineering firms, drone platforms, and pilot networks. Its platform is trusted by industry leaders to deliver differentiated analytics and actionable intelligence, cementing its position as a driving force in the future of automated asset inspection and digital twin technology.

20. Pointivo is a company of “Pioneers in 3D Asset Inspection” and developed an analytics platform “built by a world-class team of AI and computer vision software experts pioneering AI-driven 3D image analytics technologies for automated drone inspection services.” *About Us*, POINTIVO (last visited Feb. 28, 2025), <https://pointivo.com/about-us/>. For example, Pointivo has launched its Asset Inspection platform, which utilizes Pointivo’s SmartNav digital twin technology. Matt Collins, *Pointivo launches new digital twin offering for asset inspection*, GEO WEEK NEWS (Aug. 14, 2023), <https://www.geoweekeews.com/news/pointivo-asset-inspection-digital-twin-artificial-intelligence>.

21. “Pointivo’s drone inspection services and solutions deliver complete,

fast and accurate automated measurement, inspection, damage detection and assessment, inventory management, budgeting and risk mitigation.” *Drone Inspection Software*, POINTIVO (last visited Feb. 28, 2025), <https://pointivo.com/drone-inspection-services/>. Pointivo is also “the leader in the roofing analytics space. They are the only provider of roofing analytics who offers a highly accurate automated solution for high-res drone imagery.” *Id.*

22. Pointivo also takes “a strategic approach to patents and IP by focusing protection on large impact areas that align with . . . relevant markets.” *About Us*, POINTIVO (last visited Feb. 28, 2025), <https://pointivo.com/about-us/>. For example, Pointivo has patents and pending patent applications focusing on accurate extraction of surface boundaries in point clouds; extraction of 3D objects from scene information; automatic generation of wireframes using CV + ML; intelligence data capture and inspection report; and concurrent visualization of multiple types of sensor data. *Id.*

23. As a result, Pointivo works “with the world’s leading drone platforms, drone pilot networks and aerial imagery providers as well as Fortune 1000 companies and leaders in each market segment. Our partners rely on us and the power of the Pointivo platform to deliver differentiated analytics and rich intelligence.” *About Us*, POINTIVO (last visited Feb. 28, 2025), <https://pointivo.com/about-us/>.

THE ACCUSED PRODUCTS

24. Defendant uses, causes to be used, sells, offers for sale, imports, provides, supplies, or distributes Ávrio, an AI-powered software platform, along with related products and services (the “Accused Products”).

25. As detailed below and in the exemplary claim charts attached hereto, the Accused Products practices at least one claim of each of the Asserted Patents.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 9,460,517

26. Pointivo repeats and re-alleges the allegations in Paragraphs 1 through 25 above as though fully set forth in their entirety.

27. Pointivo owns all substantial rights, interest, and title in and to U.S. Patent No. 9,460,517 (the “’517 patent”), including the sole and exclusive right to prosecute this action and enforce the ’517 patent against infringers and to collect damages for all relevant times.

28. The USPTO duly issued the ’517 patent on October 4, 2016, after full and fair examination of Application No. 14/826,104 which was filed August 13, 2015, and claims priority to provisional application No. 62/066,925, filed on October 22, 2014. *See* ’517 patent at 1.

29. The claims of the ’517 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and

operation of mobile communications and tracking systems.

30. The written description of the '517 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

31. Pointivo or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '517 patent.

32. Defendant has directly infringed one or more claims of the '517 patent by manufacturing, selling, offering for sell, importing, using, providing, supplying, or distributing the Accused Products.

33. Defendant has directly infringed, either literally or under the doctrine of equivalents, at least claim 11 of the '517 patent, as detailed in **Exhibit A** (Evidence of Use Regarding Infringement of U.S. Patent No. 9,460,517).

34. For example, as detailed in Exhibit A, the Accused Products perform a computerized method of obtaining at least one measurement of an object of interest comprising: receiving a plurality of 2D images of a scene from a single passive image-capture device, wherein the plurality of 2D images includes image data of at least one object of interest present in the scene, and at least a portion of the plurality

of 2D images of the scene are at least partially overlapping with regard to the at least one object of interest, thereby providing a plurality of overlapping 2D images that includes the at least one object of interest; generating, by the computer, a 3D representation of the at least one object of interest, wherein the 3D digital representation is obtained from at least a portion of the 2D digital images incorporating the at least one object using a process incorporating a structure from motion algorithm; selecting, by either or both the computer or the user, one or more dimensions of interest in the at least one object of interest, wherein each selected dimension, independently, comprises an actual measurement value; extracting data, by the computer, from the 3D digital representation, wherein the extracted data comprises measurement data comprising information corresponding to each selected damage; and processing, by the computer, the extracted measurement data to provide an extracted measurement value for each selected dimension. *See Exhibit A.*

35. Since at least the time of receiving the original complaint in this action, Defendant has indirectly infringed and continues to indirectly infringe the '517 Patent by inducing others to directly infringe the '517 Patent. Defendant has induced and continues to induce customers and end-users, including, but not limited to, Defendant's customers, employees, partners, contractors, customers and/or potential customers, to directly infringe, either literally or under the doctrine of equivalents, the '517 Patent by providing or requiring use of the Accused Products. Defendant

has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the '517 Patent, including, for example, claim 11. Such steps by Defendant have included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; distributing instructions that guide users to use the Accused Products in an infringing manner; and/or instructional and technical support on its website/dashboard and/or telematics application(s). Defendant has been performing these steps, which constitute induced infringement with the knowledge of the '517 Patent and with the knowledge that the induced acts constitute infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '517 Patent. Defendant's inducement is ongoing.

36. Defendant has indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '517 Patent. Defendant has contributed and continues to contribute to the direct infringement of the '517 Patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '517 Patent, including, for

example, claim 13. The special features constitute a material part of the invention of one or more of the claims of the '517 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

37. Defendant had knowledge of the '517 Patent at least as of the date when it was notified of the filing of this action.

38. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of Pointivo's patent rights.

39. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

40. Defendant's infringement of the '517 Patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of Pointivo's rights under the '517 Patent.

41. Pointivo has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. Pointivo has and will continue to suffer this harm by virtue of Defendant's infringement of the '517 Patent. Defendant's actions have interfered with and will interfere with Pointivo's ability to

license technology. The balance of hardships favors Pointivo's ability to commercialize its own ideas and technology. The public interest in allowing Pointivo to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

42. Pointivo has been damaged as a result of the infringing conduct by Defendant alleged above. Defendant is liable to Pointivo in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 9,886,774

43. Pointivo repeats and re-alleges the allegations in Paragraphs 1 through 25 above as though fully set forth in their entirety.

44. The USPTO duly issued U.S. Patent No. 9,886,774 (hereinafter, the "'774 patent") on February 6, 2018 after full and fair examination of Application No. 15/248,206 which was filed on August 26, 2016, and ultimately claims priority to provisional application No. 62/066,925, which was filed on October 22, 2014. '774 patent, at 1.

45. Pointivo owns all substantial rights, interest, and title in and to the '774 patent, including the sole and exclusive right to prosecute this action and enforce the '774 patent against infringers and to collect damages for all relevant times.

46. Pointivo or its predecessors-in-interest have satisfied all statutory

obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '774 patent.

47. The claims of the '774 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of mobile communications and tracking systems.

48. The written description of the '774 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

49. Defendant has directly infringed the claims of the '774 patent by making, using, selling, offering to sell, importing, and/or internal and external testing of the Accused Products.

50. For instance, as just one example of infringement, Defendant has directly infringed, either literally or under the doctrine of equivalents, at least claim 1 of the '774 patent, as detailed in the claim chart attached hereto as **Exhibit B** (Evidence of Use Regarding Infringement of U.S. Patent No. 9,886,774).

51. For example, as detailed in Exhibit B, Defendant, when using the Accused Products, performs a computerized method of obtaining at least one

measurement of an object of interest comprising: receiving, by a computer, a plurality of 2D images of a scene, comprising digital images or video frames from a single passive image-capture device, wherein the plurality of 2D images includes image data of at least one object of interest, and at least a portion of the plurality of 2D images are at least partially overlapping with regard to the at least one object of interest, thereby providing a plurality of overlapping images that includes the at least one object of interest; generating, by the computer, a 3D point cloud of the at least one object of interest from the image data; generating, by the computer, information about spatial distances between point pairs in the 3D point cloud, thereby providing primitive geometry information comprising information about edge/boundary points, straight lines, curved boundaries, planar surfaces or curved surfaces for the at least one object of interest; and converting, by the computer, the generated information into 3D coordinates for the at least one object of interest. *See Exhibit B.*

52. Since at least the time of receiving the original complaint in this action, Defendant has indirectly infringed and continues to indirectly infringe the '774 Patent by inducing others to directly infringe the '774 Patent. Defendant has induced and continues to induce customers and end-users, including, but not limited to, Defendant's customers, employees, partners, contractors, customers and/or potential customers, to directly infringe, either literally or under the doctrine of equivalents,

the '774 Patent by providing or requiring use of the Accused Products. Defendant has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the '774 Patent, including, for example, claim 1. Such steps by Defendant have included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; distributing instructions that guide users to use the Accused Products in an infringing manner; and/or instructional and technical support on its website/dashboard and/or telematics application(s). Defendant has been performing these steps, which constitute induced infringement with the knowledge of the '774 Patent and with the knowledge that the induced acts constitute infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '774 Patent. Defendant's inducement is ongoing.

53. Defendant has indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '774 Patent. Defendant has contributed and continues to contribute to the direct infringement of the '774 Patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses

other than ones that infringe one or more claims of the '774 Patent, including, for example, claim 1. The special features constitute a material part of the invention of one or more of the claims of the '774 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

54. Defendant had knowledge of the '774 Patent at least as of the date when it was notified of the filing of this action.

55. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of Pointivo's patent rights.

56. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

57. Defendant's infringement of the '774 Patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of Pointivo's rights under the '774 Patent.

58. Pointivo has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. Pointivo has and will continue to suffer this harm by virtue of Defendant's infringement of the '774 Patent.

Defendant's actions have interfered with and will interfere with Pointivo's ability to license technology. The balance of hardships favors Pointivo's ability to commercialize its own ideas and technology. The public interest in allowing Pointivo to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

59. Pointivo has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Pointivo in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 9,904,867

60. Pointivo repeats and re-alleges the allegations in Paragraphs 1 through 25 above as though fully set forth in their entirety.

61. The USPTO duly issued U.S. Patent No. 9,904,867 (hereinafter, the "'867 patent") on February 27, 2018 after full and fair examination of Application No. 15/418,741 which was filed on January 29, 2017; which claims priority to provisional application No. 62/451,700, which was filed on January 28, 2017; which claims priority to provisional application No. 62/288,520, which was filed on January 29, 2016.

62. Pointivo owns all substantial rights, interest, and title in and to the '867 patent, including the sole and exclusive right to prosecute this action and enforce the

'867 patent against infringers and to collect damages for all relevant times.

63. Pointivo or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '867 patent.

64. The claims of the '867 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of mobile communications and tracking systems.

65. The written description of the '867 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

66. Defendant has directly infringed the claims of the '867 patent by making, using, selling, offering to sell, importing, and/or internal and external testing of the Accused Products.

67. For instance, as just one example of infringement, Defendant has directly infringed, either literally or under the doctrine of equivalents, at least claim 18 of the '867 patent, as detailed in the claim chart attached hereto as **Exhibit C** (Evidence of Use Regarding Infringement of U.S. Patent No. 9,904,867).

68. For example, as detailed in Exhibit C, Defendant, using the Accused Products, performs a method of generating information about one or more objects of interest in a scene, comprising: providing 2D (two-dimensional) image information from a plurality of overlapping 2D images of a scene, wherein at least some of the plurality of overlapping 2D images: include all or part of one or more objects of interest, and ii. are overlapping as to all or part of the one or more objects of interest, thereby providing 2D image information incorporating all or part of the one or more objects of interest; providing 3D (three-dimensional) information generated from the scene, wherein the 3D information from the scene incorporates information about all or part of the one or more objects of interest, thereby providing 3D information that incorporates all or part of the one or more objects of interest; generating projective geometry information by combining at least some of the 2D image information incorporating all or part of the one or more objects of interest and at least some of the 3D information incorporating all or part of the one or more objects of interest, thereby establishing a plurality of relationships between 3D data points derived from either or both of the 2D image information incorporating all or part of the one or more objects of interest and 3D image information incorporating all or part of the one or more objects of interest; generating clustered 3D information by clustering the 3D information incorporating all or part of the one or more objects of interest to partition and group the 3D data points present in the 3D information,

wherein the 3D data points are associated with all or part of the one or more objects of interest, thereby providing clustered 3D information associated with all or part of the one or more objects of interest; a generating segmented 2D image information by segmenting the 2D image information incorporating all or part of the one or more objects of interest to partition and group image elements, thereby providing segmented 2D image information including information about at least part of the one or more objects of interest; and generating validated 2D and 3D image information by iteratively cross-referencing the projective geometry information, the clustered 3D information and the segmented 2D image information, thereby providing validated 2D and 3D image information including information about at least part of the one or more objects of interest. *See Exhibit C.*

69. Since at least the time of receiving the original complaint in this action, Defendant has indirectly infringed and continues to indirectly infringe the '867 Patent by inducing others to directly infringe the '867 Patent. Defendant has induced and continues to induce customers and end-users, including, but not limited to, Defendant's customers, employees, partners, contractors, customers and/or potential customers, to directly infringe, either literally or under the doctrine of equivalents, the '867 Patent by providing or requiring use of the Accused Products. Defendant has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that

infringes one or more claims of the '867 Patent, including, for example, claim 18. Such steps by Defendant have included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; distributing instructions that guide users to use the Accused Products in an infringing manner; and/or instructional and technical support on its website/dashboard and/or telematics application(s). Defendant has been performing these steps, which constitute induced infringement with the knowledge of the '867 Patent and with the knowledge that the induced acts constitute infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '867 Patent. Defendant's inducement is ongoing.

70. Defendant has indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '867 Patent. Defendant has contributed and continues to contribute to the direct infringement of the '867 Patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '867 Patent, including, for example, claim 18. The special features constitute a material part of the invention of one or more of the claims of the '867 Patent and are not staple articles of

commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

71. Defendant had knowledge of the '867 Patent at least as of the date when it was notified of the filing of this action.

72. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of Pointivo's patent rights.

73. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

74. Defendant's infringement of the '867 Patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of Pointivo's rights under the '867 Patent.

75. Pointivo has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. Pointivo has and will continue to suffer this harm by virtue of Defendant's infringement of the '867 Patent. Defendant's actions have interfered with and will interfere with Pointivo's ability to license technology. The balance of hardships favors Pointivo's ability to commercialize its own ideas and technology. The public interest in allowing

Pointivo to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

76. Pointivo has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Pointivo in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 11,043,026

77. Pointivo repeats and re-alleges the allegations in Paragraphs 1 through 25 above as though fully set forth in their entirety.

78. The USPTO duly issued U.S. Patent No. 11,043,026 (hereinafter, the “’026 patent”) on June 22, 2021 after full and fair examination of Application No. 15/881,795 which was filed on January 18, 2018, which claims priority to provisional application No. 62/451,700, which was filed on January 28, 2017.

79. Pointivo owns all substantial rights, interest, and title in and to the ’026 patent, including the sole and exclusive right to prosecute this action and enforce the ’026 patent against infringers and to collect damages for all relevant times.

80. Pointivo or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the ’026 patent.

81. The claims of the ’026 patent are not directed to an abstract idea and

are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of preexisting systems and methods of data transmission in wireless communication systems.

82. The written description of the '026 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

83. Defendant has directly infringed one or more claims of the '026 patent by making, using, selling, offering to sell, importing, and/or internal and external testing of the Accused Products.

84. Defendant has directly infringed, either literally or under the doctrine of equivalents, at least claim 1 of the '026 patent, as detailed in the claim chart attached hereto as **Exhibit D** (Evidence of Use Regarding Infringement of U.S. Patent No. 11,043,026).

85. For example, as detailed in Exhibit D, Defendant, using the Accused Products, performs a method of generating wireframe rendering of at least one structure of interest in a scene comprising: providing, automatically by a computer, 2D and 3D data for at least one structure of interest in a scene; processing,

automatically by the computer, the 2D and 3D data to generate 3D information comprising an edge or skeletal representation associated with the at least one structure of interest, wherein the 2D and 3D data comprising the at least one structure of interest in the scene is generated by: i. providing a plurality of 2D images including the at least one structure of interest and at least one point cloud including the at least one structure of interest, wherein the plurality of 2D images are associated with the at least one point cloud; or ii. processing a plurality of point clouds to extract at least some 2D data associated with the at least one structure of interest, thereby providing point cloud data associated with 2D data derived from the plurality of point clouds; and extracting, automatically by a computer, at least one geometric primitive from the 3D information comprising the edge or skeletal representation, each of the at least one geometric primitive being an object surface of the at least one structure of interest, wherein each extracted geometric primitive, independently, is selected from a list of geometric primitives in Table 1: TABLE 1 No. Type Canonical Expression: One real plane $ax + by + cz + d = 0$ • Ellipsoid $x^2/a + y^2/b + z^2/c = 1$ • Elliptic cylinder $x^2/a + y^2/b = 1$ • Hyperbolic cylinder $x^2/a - y^2/b = 1$ • Parabolic cylinder $x^2 + 2y = 0$ • Quadric cone $x^2/a + y^2/b - z^2/c = 0$ • Hyperboloid of one sheet $x^2/a + y^2/b - z^2/c = 1$ • Hyperboloid of two sheets $x^2/a + y^2/b - z^2/c = -1$ • Hyperbolic paraboloid $x^2/a - y^2/b + 2z = 0$ • Elliptic paraboloid $x^2/a - y^2/b + 2z = 0$ • Intersecting planes $x^2/a - y^2/b = 0$ • Parallel planes $x^2 = 1$ and processing

automatically by the computer, output from step c to provide a wireframe rendering of at least part of the at least one structure of interest in the scene, the processing comprising: determining edges of the object surfaces; determining intersections and spatial relationships between intersecting object surfaces; resolving edges of the object surfaces based at least in part upon the intersections, the spatial relationships, and the plurality of 2D images; and combining the resolved object surfaces to generate the wireframe rendering. *See* Exhibit D.

86. Since at least the time of receiving the original complaint in this action, Defendant has indirectly infringed and continues to indirectly infringe the '026 Patent by inducing others to directly infringe the '026 Patent. Defendant has induced and continues to induce customers and end-users, including, but not limited to, Defendant's customers, employees, partners, contractors, customers and/or potential customers, to directly infringe, either literally or under the doctrine of equivalents, the '026 Patent by providing or requiring use of the Accused Products. Defendant has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the '026 Patent, including, for example, claim 1. Such steps by Defendant have included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an

infringing manner; distributing instructions that guide users to use the Accused Products in an infringing manner; and/or instructional and technical support on its website/dashboard and/or telematics application(s). Defendant has been performing these steps, which constitute induced infringement with the knowledge of the '026 Patent and with the knowledge that the induced acts constitute infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '026 Patent. Defendant's inducement is ongoing.

87. Defendant has indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '026 Patent. Defendant has contributed and continues to contribute to the direct infringement of the '026 Patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '026 Patent, including, for example, claim 1. The special features constitute a material part of the invention of one or more of the claims of the '026 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

88. Defendant had knowledge of the '026 Patent at least as of the date when it was notified of the filing of this action.

89. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of Pointivo's patent rights.

90. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

91. Defendant's infringement of the '026 Patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of Pointivo's rights under the '026 Patent.

92. Pointivo has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. Pointivo has and will continue to suffer this harm by virtue of Defendant's infringement of the '026 Patent. Defendant's actions have interfered with and will interfere with Pointivo's ability to license technology. The balance of hardships favors Pointivo's ability to commercialize its own ideas and technology. The public interest in allowing Pointivo to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

93. Pointivo has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Pointivo in an amount that

compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 11,935,288

94. Pointivo repeats and re-alleges the allegations in Paragraphs 1 through 25 above as though fully set forth in their entirety.

95. The USPTO duly issued U.S. Patent No. 11,935,288 (the “’288 patent”) on March 9, 2024, after full and fair examination of Application No. 17/567,347, which was filed on January 3, 2022, and ultimately claims priority to provisional application No. 62/942,171, which was filed on December 1, 2019. ’288 patent at 1-2.

96. Pointivo owns all substantial rights, interest, and title in and to the ’288 patent, including the sole and exclusive right to prosecute this action and enforce the ’288 patent against infringers and to collect damages for all relevant times.

97. The claims of the ’288 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of preexisting error estimation methods.

98. The written description of the ’288 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim

limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

99. Pointivo or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '288 patent.

100. Defendant has directly infringed the claims of the '288 patent by manufacturing, providing, supplying, using, distributing, selling, or offering to sell the Accused Products. For instance, Defendant has directly infringed, either literally or under the doctrine of equivalents, at least claim 1 of the '288 patent, as detailed in the claim chart attached hereto as **Exhibit E** (Evidence of Use Regarding Infringement of U.S. Patent No. 11,935,288).

101. For example, as detailed in Exhibit E, Defendant, using the Accused Products, performs a method of remotely inspecting a real-life object in a scene or location using a collection previously acquired object-related data comprising: providing, by a computer, a stored data collection associated with an object of interest in a real-life scene or location, wherein: i. the stored data collection comprises at least two different data types associated with the object of interest, wherein one of the at least two different data types comprises or is derived from two-dimensional (2D) aerial images including the object of interest, and wherein: (1) each of the 2D aerial images is acquired by an unmanned aerial vehicle (UAV)

configured with an imaging device, wherein the 2D aerial images are acquired while the UAV is navigated in and around the real-life scene or location during one or more UAV imaging events; and (2) each of the 2D aerial images includes information associated with both of a UAV imaging device location and orientation in the real-life scene or location when that 2D aerial image was acquired; and generating, by the computer, an object information display in a single user viewport configured on a user device, wherein the object information display: (1) comprises a first data type and at least one additional data type present in or derived from the stored data collection, wherein one of the data types is defined as a base data type and the at least one additional data type is defined as a dependent data type; (2) includes a 3D representation of all or part of the object of interest; and (3) prior to generation of the object information display each of the data types are synchronized by either of: (a) registering data for each of the data types in a single coordinate system; or (b) selecting a target coordinate system and calculating one or more transformations for data in each of the data types, wherein the one or more transformations enable representation of each of the data types in the target coordinate system; navigating, by a user, a scene camera to generate a user-selected positioning of the scene camera relative to the 3D representation of the object of interest as displayed in the single user viewport; and updating, by the computer, the object information display in real time as the scene camera is being navigated by the

user in the single user viewport, wherein the updated object information display includes an object-centric visualization of the 3D representation of the object of interest derived from the user's positioning of the scene camera relative to the 3D representation as appearing in the single user viewport, and wherein the updated object information display is provided with a concurrent display of the at least one additional data type. *See* Exhibit E.

102. Since at least the time of receiving the original complaint in this action, Defendant has indirectly infringed and continues to indirectly infringe the '288 Patent by inducing others to directly infringe the '288 Patent. Defendant has induced and continues to induce customers and end-users, including, but not limited to, Defendant's customers, employees, partners, contractors, customers and/or potential customers, to directly infringe, either literally or under the doctrine of equivalents, the '288 Patent by providing or requiring use of the Accused Products. Defendant has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the '288 Patent, including, for example, claim 1. Such steps by Defendant have included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; distributing instructions that guide users to use the Accused

Products in an infringing manner; and/or instructional and technical support on its website/dashboard and/or telematics application(s). Defendant has been performing these steps, which constitute induced infringement with the knowledge of the '288 Patent and with the knowledge that the induced acts constitute infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '288 Patent. Defendant's inducement is ongoing.

103. Defendant has indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '288 Patent. Defendant has contributed and continues to contribute to the direct infringement of the '288 Patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '288 Patent, including, for example, claim 1. The special features constitute a material part of the invention of one or more of the claims of the '288 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

104. Defendant had knowledge of the '288 Patent at least as of the date when it was notified of the filing of this action.

105. Furthermore, on information and belief, Defendant has a policy or practice

of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of Pointivo's patent rights.

106. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

107. Defendant's infringement of the '288 Patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of Pointivo's rights under the '288 Patent.

108. Pointivo has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. Pointivo has and will continue to suffer this harm by virtue of Defendant's infringement of the '288 Patent. Defendant's actions have interfered with and will interfere with Pointivo's ability to license technology. The balance of hardships favors Pointivo's ability to commercialize its own ideas and technology. The public interest in allowing Pointivo to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

109. Pointivo has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Pointivo in an amount that compensates it for such infringements, which by law cannot be less than a reasonable

royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

JURY DEMAND

110. Pointivo hereby requests a trial by jury on all issues so triable by right.

PRAYER FOR RELIEF

111. Pointivo requests that the Court find in its favor and against Defendant, and that the Court grant Pointivo the following relief:

- a. Judgment that one or more claims of each of the Asserted Patents has been infringed, either literally or under the doctrine of equivalents, by Defendant or others acting in concert therewith;
- b. Judgment that Defendant accounts for and pays to Pointivo all damages to and costs incurred by Pointivo because of Defendant's infringing activities and other conduct complained of herein;
- c. A permanent injunction enjoining Defendant and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in concert therewith from infringement of the Asserted Patents; or, in the alternative, an award of a reasonable ongoing royalty for future infringement of the Asserted Patents by such entities;
- d. Judgment that Defendant's infringements of the Asserted Patents be found willful, and that the Court award treble damages for the period of such

willful infringement pursuant to 35 U.S.C. § 284;

- e. Pre-judgment and post-judgment interest on the damages caused by Defendant's infringing activities and other conduct complained of herein;
- f. That this Court declare this an exceptional case and award Pointivo its reasonable attorneys' fees and costs in accordance with 35 U.S.C. § 285; and
- g. All other and further relief as the Court may deem just and proper under the circumstances.

Respectfully submitted March 10, 2025.

/s/ Brian R. Gilchrist

Brian R. Gilchrist, FL Bar No. 774065

bgilchrist@allendyer.com

ALLEN, DYER, DOPPELT + GILCHRIST, P.A.

255 S. Orange Avenue, Suite 1401

Orlando, Florida 32801

Tel. (407) 841-2330

Fax: (407) 841-2343

C. Matthew Rozier (CO 46854)*

Kenneth A. Matuszewski (IL 6324308)*

ROZIER HARDT McDONOUGH PLLC

1500 K Street, 2nd Floor

Washington, District of Columbia 20005

Telephone: (404) 779-5305;

(202) 316-1591

Email: matt@rhmttrial.com

Email: kenneth@rhmttrial.com

Attorneys for Plaintiff POINTIVO, INC.

**Pro hac vice application to be filed*