IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

ALARM.COM INCORPORATED and ICN ACQUISITION, LLC, Plaintiffs, v. VIVINT, INC. Defendant.	)	Civil Action No. 2:23-cv-00004 JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT AGAINST VIVINT, INC.

Plaintiffs Alarm.com Incorporated ("ADC") and ICN Acquisition, LLC ("ICN"), by its undersigned counsel, file this Complaint for patent infringement against Defendant Vivint, Inc. ("Vivint"), alleging, with knowledge as to its own acts and on information and belief as to all other matters, as follows:

NATURE OF THE ACTION

1. This action arises under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*, including specifically 35 U.S.C. § 271, based on Vivint's infringement of fifteen U.S. Patents that are owned by ADC and ICN. These fifteen "Patents-in-Suit" are U.S. Patent Nos. 9,064,394 (the "'394 Patent"), 9,665,778 (the "'778 Patent"), 11,354,908 (the "'908 Patent"), 10,915,758 (the "'758 Patent"), 9,196,148 (the "'148 Patent"), 10,026,300 (the "'300 Patent"), 7,457,834 (the "'834 Patent"), 7,536,388 (the "'388 Patent"), 7,941,188 (the "'188 Patent"), 9,558,447 (the "'447 Patent"), 8,612,591 (the "'591 Patent"), 9,172,553 (the "'553 Patent"), 9,141,276 (the "'276 Patent"), 8,335,842 (the "'842 Patent") and 8,860,804 (the "'804 Patent").

2. ADC is a leader in security and home automation products and services, and the owner of several of the Patents-in-Suit.[1] Among other things, ADC provides a platform through which home automation and security service providers may offer their services to customers. This platform, commonly referred to as a "backend" system, hosts cloud-based solutions that provide functionality to home security and automation systems, including such features as interactive security, video monitoring, intelligent automation, energy management and wellness monitoring. In today's competitive environment, participants in the home security and automation market must provide a function-rich suite of services that are powered by a backend like the one provided by ADC. The functionality of ADC's Backend is protected by hundreds of patents, including the Patents-in-Suit.

3. Vivint sells products and services in the smart home and security market, including integrated security panels, doorbell cameras, glass break sensors, GPS monitoring systems, and other similar products. It also provides installation and support for its services and offerings. Until 2014, Vivint used third-party platforms to support its smart home and security packages, including the ADC Backend.

4. Vivint became an ADC dealer in 2007, and began to sell smart home and security packages that operated using ADC's Backend platform. Vivint became a significant ADC dealer and began working closely with ADC to improve its offerings, including through a joint development agreement pursuant to which Vivint received trade secrets and other confidential information about the ADC Backend. In 2014, using ADC's technology, Vivint launched its own backend—originally branded as "Vivint Sky", and now branded as "Vivint Smart Home" (collectively, the "Vivint Backend").

[1] ICN is a wholly owned subsidiary of ADC and the owner of the other Patents-in-Suit.

5. As detailed below, Vivint's products and services, including the Vivint Backend, infringe the Patents-in-Suit. Vivint's infringing functionality includes, but is not limited to, using sensors, such as cameras, to detect environmental conditions, communicate those conditions to Vivint mobile app users and take action in accordance with user-defined instructions; allowing touchscreen control of Vivint panels and networked monitoring components; using GPS technology to provide location-based alerts, including through its "Car Guard" products; and other home automation and security system functionality.

6. This suit seeks to hold Vivint accountable for its use of ADC and ICN patents without license, to provide redress to ADC and ICN for the damage Vivint has caused, and to end Vivint's infringement.

THE PARTIES

7. Plaintiff ADC is a Delaware corporation with its principal place of business at 8281 Greensboro Drive, Suite 100, Tysons, VA 22102. ADC is the owner of U.S. the '394 Patent, the '778 Patent, the '908 Patent, the '758 Patent, the '148 Patent, the '300 Patent, the '834 Patent, the '388 Patent, the '188 Patent, the '447 Patent and the '804 Patent.

8. Plaintiff ICN is a Delaware limited liability company having a registered agent at Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware, 19801. ICN is a wholly-owned subsidiary of ADC and the owner of the '591 Patent, the '553 Patent, the '276 Patent and the '842 Patent.

9. Defendant Vivint is a Utah corporation, and maintains its headquarters and principal place of business at 4931 North 300 West, Provo, UT 84604. Vivint does business throughout the United States, including in this judicial district.

JURISDICTION AND VENUE

10. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the claims herein arise under the Patent Laws of the United States, 35 U.S.C. § 1 et seq., including 35 U.S.C. § 271.

11. This Court has personal jurisdiction over Vivint because it regularly transacts business, and has committed acts of infringement, within Texas and within this District through, for example, the sale and installation of products and services that infringe the Patents-in-Suit. As detailed below, Vivint has a regular and established place of business in this District, and has a registered agent for service of process in Texas. Vivint derives substantial revenue from products and/or services provided in Texas and in this District and has purposefully established substantial, systematic and continuous contacts within this District such that it should reasonably expect to be sued in a court in this District.

12. Venue in this District is proper under 28 U.S.C. §§ 1391(b), (c) and 1400 (b). Vivint offers products and services and conducts business in the Eastern District of Texas. Vivint also lists regular and established places of business in this District including at least at 1115 W Hickory St. # 105, Denton, TX 76201 ("Vivint Denton Service Area", https://www.vivint.com/locations/texas/denton), 16440 Gateway Dr. Frisco, TX 75035 ("Vivint Frisco Service Area", https://www.vivint.com/locations/texas/frisco) and 5212 Tennyson Pkwy. Suite 150 Plano, TX 75024 ("Vivint Plano Service Area", https://www.vivint.com/locations/texas/plano). Vivint has committed acts within this judicial district, giving rise to this action. Vivint continues to conduct business in this judicial district, including one or more acts of making, selling, using, importing and/or offering for sale infringing products or providing support service to Vivint's customers in this District.

13. As recently as August 2022 "Vivint admit[ed] it offers products and services and conducts business in the United States, the State of Texas, and the Eastern District of Texas". *Wireless Communications Mobile, LLC v. Vivint, Inc.*, No. 6:19-cv- 00163-JCB-JDL Dkt. 16, ¶ 11 (August 9, 2022 E.D. Tex.).

14. Vivint's website describes areas within E.D. Texas, including Panola, Rusk, Cherokee, Anderson, Henderson, Marion, Jefferson, Orange, Liberty, Hardin, Jasper, Newton, Bowie, Fannin, Franklin, Trinity, San Augustine, and Nacogdoches, as "service areas" to which it provides "24/7 monitoring", "custom system" and "professional installation". *See, e.g.*, "Home Security Systems Marion, Texas", https://www.vivint.com/locations/texas/marion. Vivint specifically seeks out business within this District, including the Marshall Division, stating that, for example, "Marion homeowners looking for energy savings, home security, and home automation should turn to Vivint". *Id.* In order to provide these services, Vivint employs individuals to provide the "professional installation" they offer to their customers. Vivint's website lists numerous jobs available in this District, such as in Carrollton, "Field Service Technician", https://vivint.wd5.myworkdayjobs.com/en-US/vivintjobs/job/Field-Service-Technician_R119274, and Lewisville, "Field Service Technician", https://vivint.wd5.myworkdayjobs.com/en-US/vivintjobs/details/Field-Service-Technician_R120096?locations=5ddffb255e3e1029aae8c163ce1bc4bc.

15. Vivint has at least two regular and established places of business in this District in the physical buildings at 1115 W Hickory Street #105, Denton, TX 76201, and 5212 Tennyson Pkwy Suite 150 Plano, TX 75024. According to property tax records, Defendant or its parent own 100% of both of these offices, and Defendant pays property taxes for both locations. (https://taxweb.dentoncounty.gov/Receipt/749593DEN/16148627; https://taxpublic.collin

countytx.gov/Receipt/P900021821581/1010453883).

ALARM.COM'S INNOVATIVE TECHNOLOGY

16. ADC was founded in 2000, and quickly became a pioneer in the nascent interactive home security industry. By 2003, ADC had developed the industry's first interactive security system that connected a consumer's home to cloud application servers using cellular technology, one of ADC's many first-to-market features and functionalities. Since then, ADC's services have expanded to incorporate video, automation, energy management and more. ADC also sells hardware, such as smart thermostats, security cameras and smart doorbells.

17. ADC provides a platform, the ADC Backend, through which independent dealers offer home automation and security services, including interactive services and related products that allow end users to monitor and control security systems and other devices in their homes (such as thermostats) through a website or mobile app. The backend hosts cloud-based solutions that provide functionality, such as interactive security, video monitoring, intelligent automation, energy management and wellness monitoring. Devices in a consumer's home communicate with the backend, most commonly via the Internet or a cellular connection, and the backend sends notifications to the consumer, commands to the devices in the home, and alarms to central monitoring stations, which can then contact police and fire departments as appropriate.

18. Unlike Vivint, ADC does not sell products or services directly to consumers; rather, ADC's products and services are sold, installed and supported by a network of authorized service providers ("ADC's dealers"). The dealers market and sell their home automation and security packages, which include ADC's products and services, to consumers at prices that the dealers independently establish. ADC's dealers pay ADC monthly fees on a per user basis for use of the ADC Backend. Millions of residential and commercial property owners

in the United States rely on service providers that make use of ADC's Backend and its innovative functionality.

19. Given ADC's long history of innovation in home automation and security services, it owns a large portfolio of patents, including patents that cover technology integral to the configuration and functioning of security system backends. Many of those innovations are claimed by the Patents-in-Suit, as detailed below.

VIVINT'S INFRINGEMENT

20. Vivint has a long history of misappropriating ADC's technology. Indeed, the Vivint Backend, as described below, was built on the back of ADC's technology. And Vivint has continued to copy ADC's innovations and incorporate them into the Vivint Backend.

21. Vivint, formerly known as APX Alarm, became an ADC dealer in or around 2007. Vivint grew to become one of ADC's largest dealers by number of customers subscribed to the ADC Backend. As Vivint grew, ADC's engineers, product developers and executives worked closely with Vivint to ensure that it had both input and insight into ADC's development projects and technology roadmap.

22. In 2009, ADC partnered with Vivint and a then-Vivint affiliate to jointly develop a groundbreaking control panel for use with ADC's platform. Under strict confidentiality restrictions, ADC provided Vivint and its affiliate with access to ADC's trade secrets and patented technology to ensure Vivint could launch the new product on its preferred timeline. That product was named the Go!Control panel. Vivint's affiliate designed and manufactured the panel hardware, ADC developed certain functionalities and worked to integrate the panel with the ADC Backend, and Vivint sold the panel to customers. The functionality of the panel was powered by the ADC Backend and cellular technology. The product was

successful and allowed Vivint to position itself as a smart home company, rebrand from APX Alarm and gain additional investment.

23. With access to ADC's technology, Vivint began secretly developing a competing backend. To do so, Vivint copied functionality from the ADC Backend, using ADC's trade secrets and patented technology in breach of its confidentiality and non-use obligations.

24. Because Vivint "developed" its backend by using ADC's technology, Vivint understood that if it wished to enter the market with its copy of ADC's protected backend technology it would need to obtain both a license to ADC patents and a covenant that ADC would not sue for Vivint's misappropriation of ADC's intellectual property. Rather than facing costly litigation over its new product, with the prospect of high royalty and/or damages payments or even an injunction preventing it from marketing the Vivint Backend, Vivint concluded that it made business sense for it to enter into a licensing agreement with ADC. In this context, the parties entered into a patent cross-licensing agreement in late 2013, which gave Vivint a license to ADC's existing patents and certain later-issued patents. This agreement enabled Vivint to enter the market with its copycat backend.[2]

25. Powered by ADC's technology, Vivint's business grew significantly. Vivint boasts around 1,921,774 subscribers today. Notably, on December 6, 2022, NRG Energy, Inc. announced its intention to acquire Vivint for $ 5.2 billion.

26. In the years since the parties entered into the license agreement, ADC has continued to innovate in the home security and automation space. ADC has been granted

[2] For years, Vivint complied with its obligations under the license agreement. That changed in September 2022, when Vivint suddenly announced that it would no longer pay its license fees. ADC promptly initiated arbitration against Vivint for breach of contract. The patents at issue in that proceeding are not implicated here. Likewise, the patents asserted here are not covered by the license to Vivint.

hundreds of patents that are not subject to Vivint's license, including the Patents-in-Suit. As ADC innovated, Vivint incorporated those innovations into the Vivint Backend.

27. The Vivint Backend, which is now branded as "Vivint Smart Home", infringes the Patents-in-Suit in conjunction with multiple Vivint products including, without limitation, the Vivint Doorbell Camera, the Vivint Doorbell Camera Pro, the Vivint Outdoor Camera Pro, the Vivint Indoor Camera, Car Guard and the SkyControl and Smart Hub panels.

28. Vivint Smart Home is marketed as a customizable system that allows customers to "remotely control and automate household systems like lighting, doors, thermostats, entertainment systems, security alarms, surveillance cameras and other connected appliances". "Home Automation", https://www.vivint.com/packages/home-automation#product-cards-1135051. The system includes a control panel installed in a property to be monitored. Vivint sells and supports at least two types of control panels—SkyControl and Smart Hub.

29. The SkyControl panel is marketed as a "[s]ingle hub connecting all [of the customer's] products" that offers "[e]mergency button for live contact with Smart Home Specialists", "[n]otifications of camera activity", "[b]uilt-in Z-wave technology enabling HVAC, appliance, lighting, and security control", "2-way voice communication with alarm monitoring operator in real-time", "[b]uilt-in cellular communication unit" and "remote management from a computer or a web-enabled phone". "Panel (SkyControl) - General Info and Specifications", https://support.vivint.com/s/article/Products-SkyControl-Panel.

30. The Smart Hub panel is described as a "central control panel" that "enables [the customer] to control [their] entire home from one single touchscreen on [the] wall". "Smart Hub", https://www.vivint.com/products/smart-hub. The Smart Hub offers customers the ability to perform most home security system tasks, such as turning on an alarm system, looking

at camera footage, answering the door and speaking to customer support, through one control panel. "Smart Hub", https://www.vivint.com/products/smart-control#form-picker-948916.

31. Among other features, Vivint markets "sensors", "smart locks", "lighting" and "indoor and outdoor security cameras" as "Vivint smart home devices [that] work together as one system". "Home Automation", https://www.vivint.com/packages/home-automation.

32. Vivint's "Smart Locks" feature works by allowing customers to "automatically turn off [the] lights, adjust [the] thermostat, and arm [the] security system". "Smart Locks", https://www.vivint.com/products/smart-locks.

33. Vivint also offers "smart home security cameras" "[w]ith smart detect and deter features" that "integrate[] with [the] smart home system". The security cameras include Vivint's Doorbell Camera Pro, Vivint Indoor Camera and Outdoor Camera Pro, which Vivint advertises as being able to notify users and capture video footage automatically upon detection of certain events or triggers. "Security Cameras", https://www.vivint.com/packages/security-cameras#product-cards-1135011. Vivint also offers "Smart Deter" technology to detect the presence of individuals within the vicinity of a Vivint camera and make a noise and/or illuminate an LED ring to alert the individual to the presence of the security monitoring system. "Smart Deter", https://www.vivint.com/products/outdoor-camera.

34. The Vivint Backend can be configured to use video from cameras to detect events as specified by the user. For example, the Vivint Backend can be configured to use video from the Outdoor Camera Pro to detect the presence of "lurkers" in a camera's field of view—*i.e.*, a person who remains for longer than some user-specified time.

35. Vivint's "Smart Clips" feature stores video clips corresponding to events detected by the Vivint video cameras. For example, the Vivint Backend will store a clip of video

showing a visitor at the user's door, from video captured by the Video Doorbell Camera Pro or the Outdoor Camera Pro. "24/7 Video Recording", https://www.vivint.com/products/video-recording.

36. Vivint also offers "Car Guard", which integrates with Vivint Smart Home to enable the end user to monitor the security, location and diagnostics of [their] car from anywhere" as well as "customize [their] Vivint smart home to turn on lights and record video using outdoor cameras if anyone disturbs the vehicle in [their] driveway". *Vivint Smart Home Launches Vivint Car Guard to Extend Smart Security to Your Car*, VIVINT (Mar. 20, 2019), https://www.vivint.com/company/newsroom/press/vivint_smart_home_launches_vivint_car_guard_to_extend_smart_security_to_your_car; *see also* "Vivint Car Guard", https://www.vivint.com/products/car-guard.

37. The "Vivint App" allows the customer to control the "smart home system" from their phone to "[a]rm or disarm [their] security system", "set[] up custom actions to automate [their] smart home", "view live camera feeds and recordings", "receive alerts and notifications [] if one of [the] cameras has deterred a lurker, [the] garage door was left open, [or] a package has been delivered", "[a]nswer [the] doorbell", "[s]ee and speak with visitors through [the] doorbell from anywhere with 2-way talk and clear 180x180 HD video", "[c]ontrol lights", "check[] the status of [the] smart locks and easily lock or unlock [] doors" and "[o]pen and [c]lose [the] garage door". "Vivint App", https://apps.apple.com/us/app/vivint/id734547946.

COUNT I: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 9,064,394

38. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

41. The ’394 Patent is entitled “Virtual Sensors”, and its inventor is Stephen Scott Trundle, who is currently serving as ADC’s Chief Executive Officer. The ’394 Patent application was filed on June 21, 2012, and duly and lawfully issued on June 23, 2015. A true and correct copy of the ’394 Patent is attached as Exhibit A.

42. ADC is the assignee of the ’394 Patent”. ADC has ownership of all substantial rights in the ’394 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

43. The ’394 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

44. The ’394 Patent is generally directed to technological improvements in virtual sensor technology. In particular, its claims relate to controlling a camera to capture a configuration image, receiving input defining characteristics of the image, generating configuration data, and using the data to sense an event through image data.

45. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the ’394 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 3 of the ’394 Patent without license from ADC.

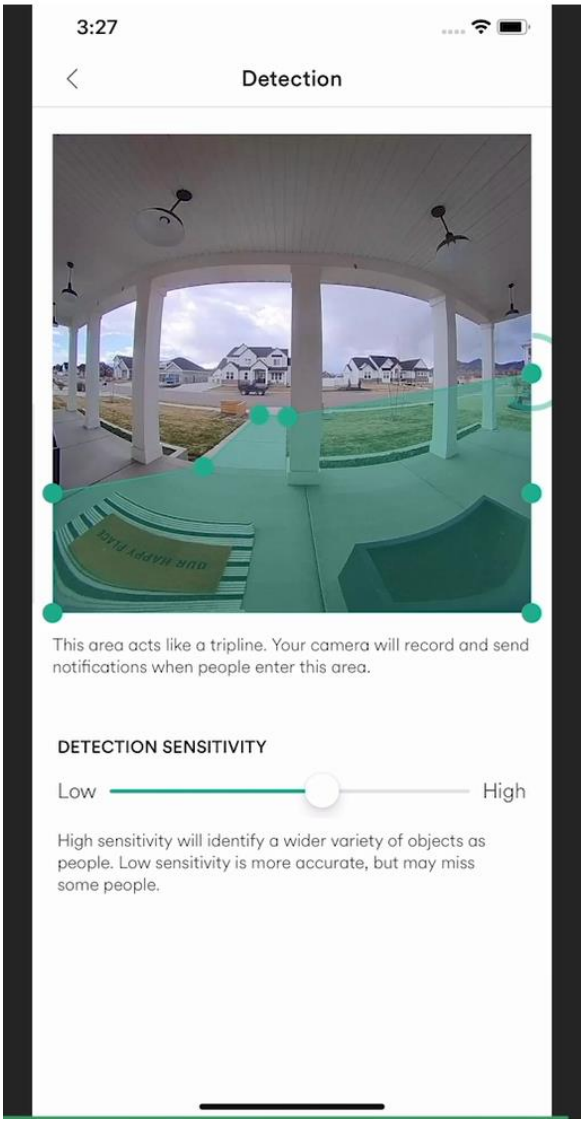
46. Independent claim 3 of the ’394 Patent recites:

> A method comprising:
>
> controlling a camera to capture at least one configuration image of an area monitored by a monitoring system;
>
> receiving input defining one or more characteristics of the at least one configuration image that enable sensing of an event in the area monitored by the monitoring system;

> based on the received input defining the one or more characteristics of the at least one configuration image, generating configuration data used in sensing the event through image data captured by the camera;
>
> storing, in an electronic storage device, the configuration data used in sensing the event through image data captured by the camera;
>
> after storing the configuration data, controlling the camera to capture one or more images of the area monitored by the monitoring system;
>
> analyzing the one or more images based on the configuration data;
>
> detecting occurrence of the event based on the analysis of the one or more images; and
>
> based on detecting occurrence of the event, controlling a transmitting device to send, to a controller of the monitoring system, a signal that indicates the detection of the occurrence of the event.
>
> ('394 Patent, Ex. A, at 40:47–41:4.)

47. For example, and without limitation, the Vivint Backend controls cameras, including the Vivint Doorbell Camera Pro, to capture configuration images of an area.

48. The Vivint Backend receives input from a user that defines an area of the configuration images to be used in detecting events. This input enables the Vivint Backend to sense an event in the area being monitored, such as a person entering a region in front of the camera. An example of the Vivint Backend receiving input that defines an area of a configuration image is shown below.



49. Based on this input, the Vivint Backend generates data that is used to configure the camera to detect events such as the delivery of a package or a person entering the region in front of the camera.

50. When an event is detected by the camera, signals are transmitted to a security panel, such as a Vivint Smart Hub, that controls the system locally and to servers of the Vivint Backend.

51. The Vivint Backend stores the configuration data used in sensing the event through image data captured by the camera.

52. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the ’394 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint’s website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant’s customers and prospective customers; and/or providing technical support or other services for the products to Defendant’s customers and prospective customers.

53. Vivint has had actual knowledge of the ’394 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the ’394 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the ’394 Patent.

54. As a result of Vivint’s infringement of the ’394 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint’s wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

55. On information and belief, ADC alleges that Vivint’s infringement of the ’394 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney’s fees to ADC pursuant to 35 U.S.C. §§ 284–285.

COUNT II: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 9,665,778

56. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

57. The '778 Patent is entitled "Virtual Sensors", and its inventor is Stephen Scott Trundle. The '778 Patent application was filed on June 22, 2015, and duly and lawfully issued on May 30, 2017. A true and correct copy of the '778 Patent is attached as Exhibit B.

58. ADC is the assignee of the '778 Patent". ADC has ownership of all substantial rights in the '778 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

59. The '778 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

60. The '778 Patent is generally directed to technological improvements in virtual sensor technology. In particular, its claims relate to controlling a camera to capture a configuration image, receiving input defining characteristics of the image, generating configuration data, and using the data to sense an event through image data.

61. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the '778 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 14 of the '778 Patent without license from of ADC.

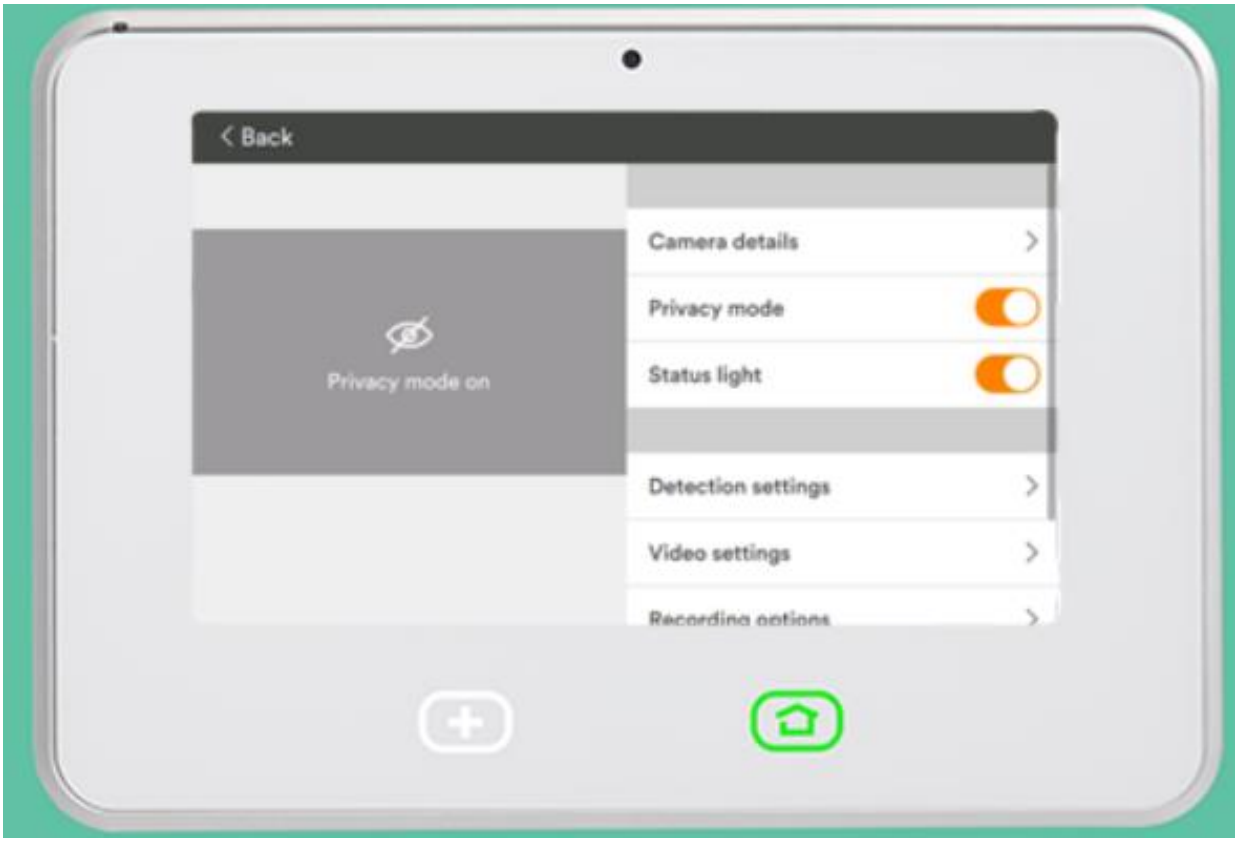
62. Independent claim 14 of the '778 Patent recites:

> A method comprising:
>
> accessing a rule defining a capture pattern for when a camera is scheduled to monitor for events within captured images, the

> camera being configured to capture images of an area monitored by a monitoring system;
>
> accessing data collected by the monitoring system that includes the camera;
>
> comparing the accessed data collected by the monitoring system with the accessed rule defining the capture pattern;
>
> based on the comparison, determining whether the accessed rule defining the capture pattern is satisfied;
>
> based on a determination that the rule is satisfied, controlling the camera to capture one or more images of the area monitored by the monitoring system;
>
> analyzing the one or more images based on configuration data;
>
> detecting occurrence of an event based on the analysis of the one or more images; and
>
> based on detecting occurrence of the event, controlling a transmitting device to send, to a controller of the monitoring system, a signal that indicates the detection of the occurrence of the event.
>
> ('778 Patent, Ex. B, at 43:34–56.)

63. For example, and without limitation, the Vivint Backend supports cameras configured to capture images of an area of a monitored property, such as a home. These cameras include the Vivint Indoor Camera, as shown below.

64. The Vivint Backend supports rules defining capture patterns for a camera, such as a privacy rule that indicates that an indoor camera should cease monitoring functions when privacy mode is enabled.



65. The Vivint Backend compares collected data with rules to determine if the rule is satisfied. If the rules indicate that image capture is allowed for a particular camera at a given time, then the camera is controlled to capture images of an area to be monitored.

66. The captured images are analyzed based on the generated configuration data, and events (such as a person entering a region in front of the camera) are detected.

67. When an event is detected, signals are transmitted to a security panel, such as a Vivint Smart Hub, that controls the system locally and to servers of the Vivint Backend.

68. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the ’778 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint’s website and mobile application; establishing distribution channels for these products in the United States; drafting,

distributing, or making available product specifications, instructions, or user manuals for the products to Defendant's customers and prospective customers; and/or providing technical support or other services for the products to Defendant's customers and prospective customers.

69. Vivint has had knowledge of the '778 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the '778 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the '778 Patent

70. As a result of Vivint's infringement of the '778 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

71. On information and belief, ADC alleges that Vivint's infringement of the '778 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to ADC pursuant to 35 U.S.C. §§ 284–285.

COUNT III: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 11,354,908

72. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

73. The '908 Patent is entitled "Virtual Sensors", and its inventor is Stephen Scott Trundle. The '908 Patent application was filed on February 5, 2021, and duly and lawfully issued on June 7, 2022. A true and correct copy of the '908 Patent is attached as Exhibit C.

74. ADC is the assignee of the ’908 Patent. ADC has ownership of all substantial rights in the ’908 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

75. The ’908 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

76. The ’908 Patent is generally directed to technological improvements in virtual sensor technology. In particular, its claims relate to a monitoring system that includes a virtual sensor, such as a camera, that captures configuration images. The monitoring system can then detect the occurrence of an event based on the characteristics of those captured images.

77. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the ’908 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 11 of the ’908 Patent without license from ADC.

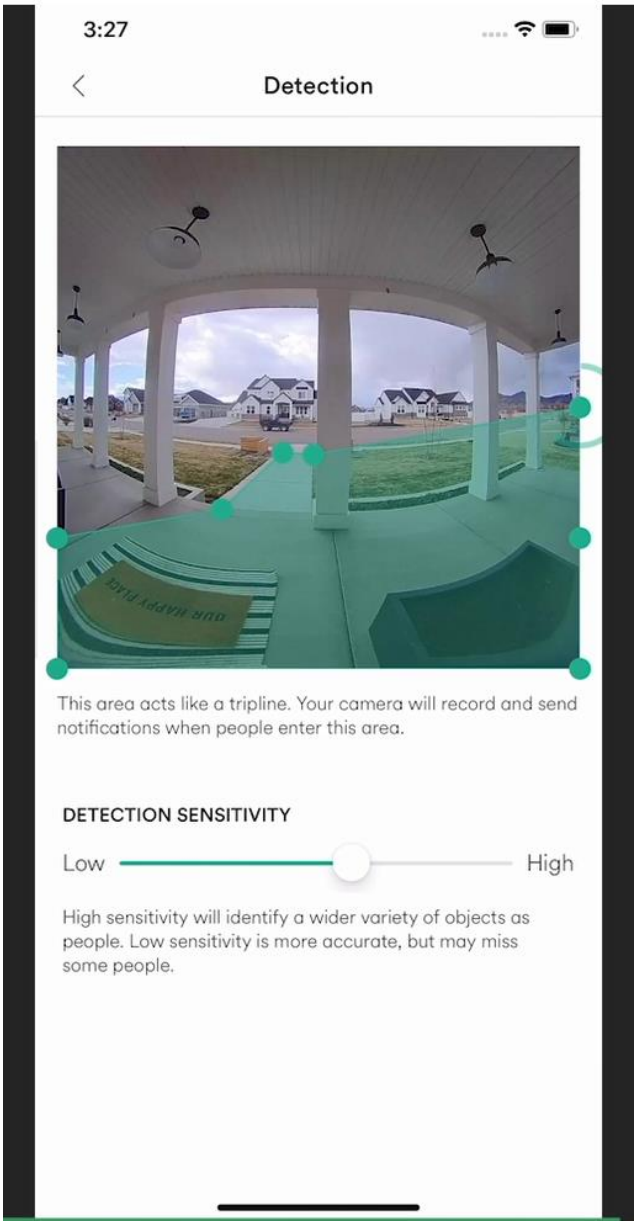
78. Independent claim 11 of the ’908 Patent recites:

> A method comprising:
>
> controlling a camera to capture at least one configuration image of an area monitored by a monitoring system;
>
> receiving input defining one or more characteristics of the at least one configuration image that enable sensing of an event in the area monitored by the monitoring system;
>
> based on the received input defining the one or more characteristics of the at least one configuration image, generating configuration data used in sensing the event through image data captured by the camera;
>
> storing, in an electronic storage device, the configuration data used in sensing the event through image data captured by the camera;

> after storing the configuration data, controlling the camera to capture one or more images of the area monitored by the monitoring system;
>
> analyzing the one or more images based on the configuration data; and
>
> detecting occurrence of the event based on the analysis of the one or more images.
>
> ('908 Patent, Ex. C, at 43:1–22.)

79. For example, and without limitation the Vivint Backend controls cameras including the Vivint Doorbell Camera Pro to capture configuration images of an area.

80. The Vivint Backend receives input from a user that defines an area of the configuration images to be used in detecting events. An example of the Vivint Backend receiving input that defines an area of a configuration image is shown below.



81. The Vivint Backend controls cameras to capture images of an area to be monitored. These images are analyzed based on the generated configuration data, and events such as a person entering a region in front of the camera, are detected. Based on this input, the Vivint Backend generates data that is used to configure the camera to detect events.

82. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of

equivalents, the ’908 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint’s website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant’s customers and prospective customers; and/or providing technical support or other services for the products to Defendant’s customers and prospective customers.

83. Vivint has had knowledge of the ’908 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the ’908 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the ’908 Patent.

84. As a result of Vivint’s infringement of the ’908 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint’s wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

85. On information and belief, ADC alleges that Vivint’s infringement of the ’908 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney’s fees to ADC pursuant to 35 U.S.C. §§ 284–285.

COUNT IV: VIVINT’S INFRINGEMENT OF U.S. PATENT NO. 10,915,758

86. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

87. The ’758 Patent is entitled “Virtual Sensors”, and its inventor is Stephen Scott Trundle. The ’758 Patent application was filed on July 1, 2019, and the patent duly and lawfully issued on February 9, 2021. A true and correct copy of the ’758 Patent is attached as Exhibit D.

88. ADC is the assignee of the ’758 Patent. ADC has ownership of all substantial rights in the ’758 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

89. The ’758 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

90. The ’758 Patent is generally directed to technological improvements in virtual sensor technology. In particular, its claims relate to controlling a camera to capture a configuration image, receiving input defining characteristics of the image, generating configuration data, and using the data to detect multiple different physical events by assigning unique identifiers to them.

91. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the ’758 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 1 of the ’758 Patent without license from ADC.

92. Independent claim 1 of the ’758 Patent recites:

> An electronic sensor comprising:
>
> a camera configured to capture images of an area of a property monitored by a monitoring system, the camera being located at the property;
>
> an electronic storage device configured to store data;

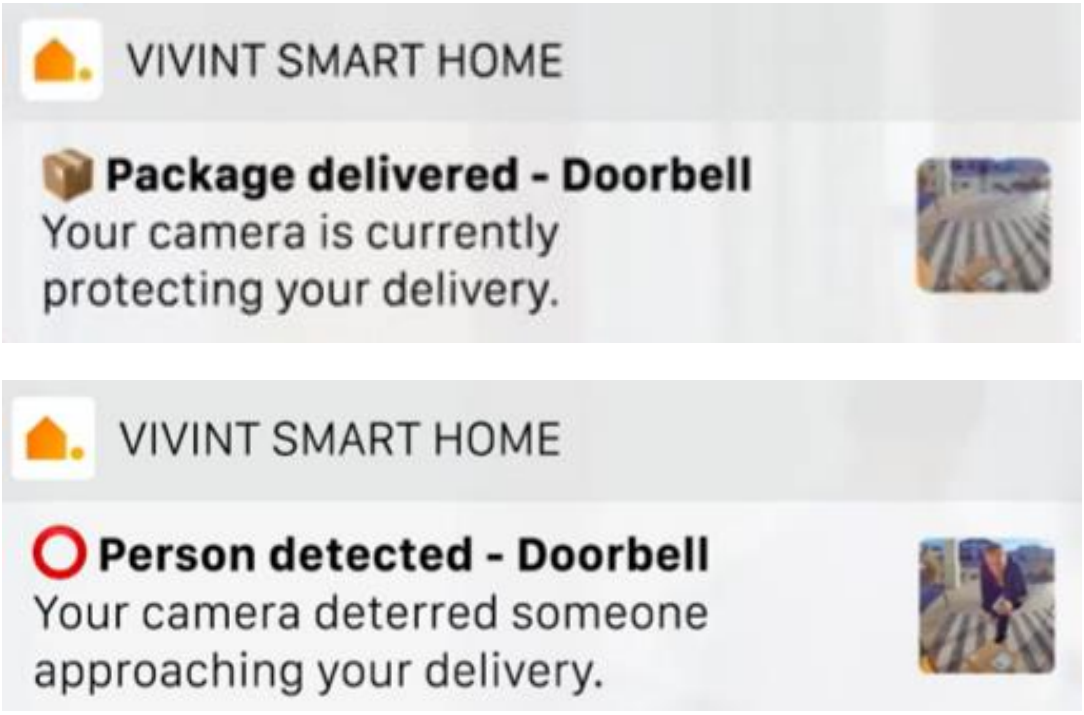
> a transmitting device configured to send signals to a controller of the monitoring system; and
>
> a processing device configured to perform operations comprising:
>
> > controlling the camera to capture, during a learn mode, at least one configuration image of the area of the property monitored by the monitoring system;
> >
> > receiving input defining characteristics of the at least one configuration image that enable sensing of multiple, different physical events that occur in the area of the property at which the camera is located;
> >
> > assigning event identifiers to each of the multiple, different physical events;
> >
> > generating configuration data that is used in sensing the multiple, different physical events through image data captured by the camera and that associates each of the multiple, different physical events with the assigned event identifiers; and
> >
> > monitoring, based on the configuration data, images captured by the camera to sense occurrence of one or more of the multiple, different physical events that occur in the area of the property at which the camera is located.
>
> ('758 Patent, Ex. D, at 40:31–58.)

93. For example, and without limitation, the Vivint Backend controls cameras including the Vivint Doorbell Camera Pro to capture configuration images of an area of a monitored property and detect multiple different physical events.

94. The Vivint Backend controls cameras at a monitored property to capture images of an area to be monitored and receives signals transmitted by the camera.

95. These images are analyzed based on the generated configuration data, and events such as a person entering a region in front of the camera or a package being delivered, are detected.

96. The Vivint Backend can, based on at least one configuration image, sense multiple different physical events and assign them unique event identifiers. An example of the Vivint Backend detecting multiple different events (detecting a person and detecting a package) and later transmitting that information to a notification recipient is shown below.



97. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the ’758 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint’s website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant’s customers and prospective customers; and/or providing technical support or other services for the products to Defendant’s customers and prospective customers.

98. Vivint has had knowledge of the ’758 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the ’758 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the ’758 Patent.

99. As a result of Vivint’s infringement of the ’758 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint’s wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

100. On information and belief, ADC alleges that Vivint’s infringement of the ’758 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney’s fees to ADC pursuant to 35 U.S.C. §§ 284–285.

COUNT V: VIVINT’S INFRINGEMENT OF U.S. PATENT NO. 9,196,148

101. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

102. The ’148 Patent is entitled “Location Based Monitoring System Alerts”, and its inventor is David James Hutz. The ’148 Patent application was filed on March 17, 2014, and the patent duly and lawfully issued on November 24, 2015. A true and correct copy of the ’148 Patent is attached as Exhibit E.

103. ADC is the assignee of the ’148 Patent. ADC has ownership of all substantial rights in the ’148 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

104. The ’148 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

105. The ’148 Patent is generally directed to improvements in monitoring system alert technology. In particular, its claims relate to analyzing monitoring system data against rules, determining that an alert is needed, accessing conditions that define geographic threshold distances, analyzing the location of a mobile device with respect to the conditions and, based on a determination that the conditions are met, causing output of the alert.

106. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the ’148 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 11 of the ’148 Patent without license from ADC.

107. Independent claim 11 of the ’148 Patent recites:

> A method comprising:
>
> accessing monitoring system data collected by a monitoring system that is located in a property of a user, the monitoring system including sensors that are fixed within the property and that sense attributes of the property;
>
> analyzing the monitoring system data against one or more rules that define alerts provided for the monitoring system;
>
> based on the analysis of the monitoring system data against the one or more rules that define alerts provided for the monitoring system, determining that an alert for the monitoring system is needed to accord with the one or more rules;

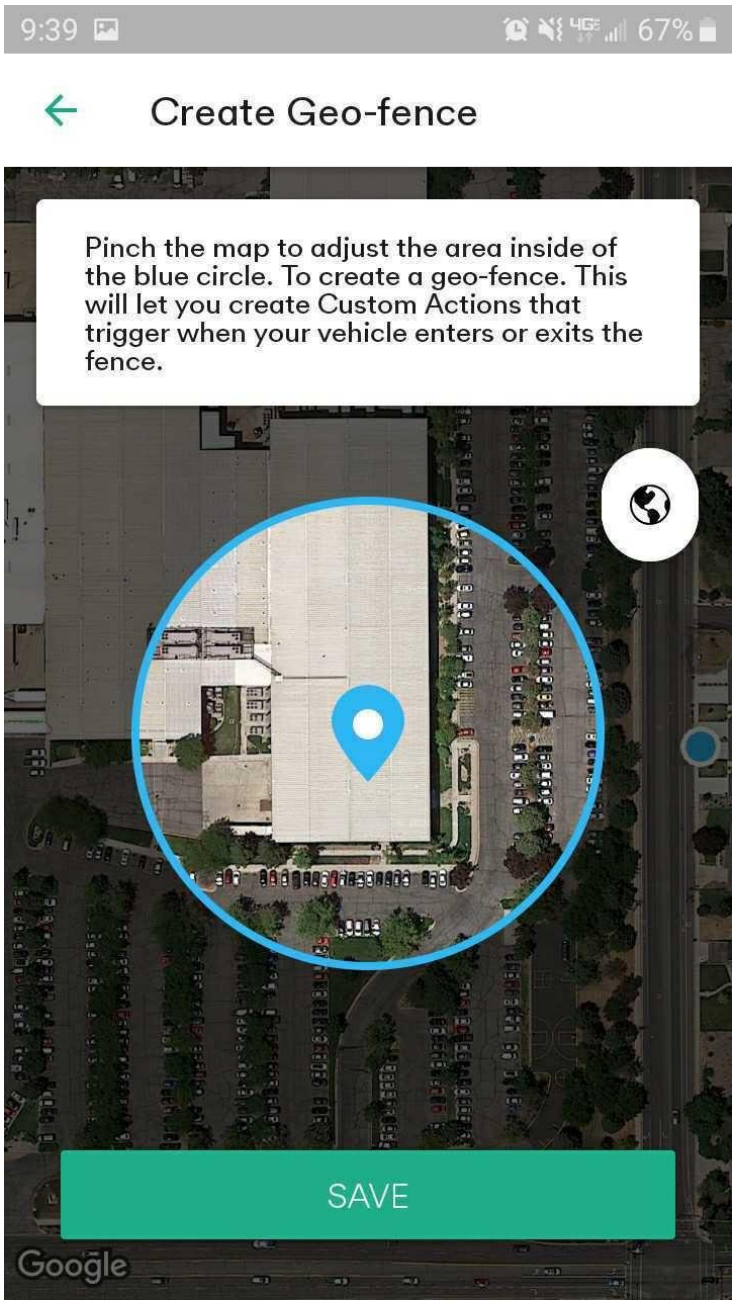
> accessing conditions for providing the alert, the accessed conditions defining one or more geographic conditions that correspond to location of a mobile device of the user associated with the monitoring system and one or more timing conditions that correspond to timing related to providing the alert;
>
> monitoring location of the mobile device of the user associated with the monitoring system;
>
> monitoring timing related to providing the alert;
>
> analyzing the monitored location of the mobile device and the monitored timing with respect to the accessed conditions;
>
> based on the analysis of the monitored location of the mobile device and the monitored timing with respect to the accessed conditions, determining that the accessed conditions for providing the alert are met; and
>
> based on the determination that the accessed conditions for providing the alert are met, causing output of the alert at the mobile device.
>
> ('148 Patent, Ex. E, at 31:25–57.)

108. For example, and without limitation, the Vivint Backend comprises a system and method for accessing data from monitoring systems that include sensors fixed within a property, such as security sensors; analyzing the data against one or more rules that define alerts; and, based on the analysis, determining if an alert is needed.

109. Vivint Car Guard is an example of a component of a monitoring system that is integrated with the Vivint Backend and Vivint's mobile apps. The Vivint Backend monitors data from Car Guard against various rules that define alert conditions to determine if a rule is satisfied.

110. Some types of alerts include conditions based on a geographic distance that corresponds to the location of a mobile device of the user. For example, Vivint Car Guard enables alerts that are conditioned on the location of a user's vehicle. Users can receives alerts

when their vehicle enters or exits a geo-fence that is defined as a geographic distance from their home. The image below shows an example of such a geo-fence being defined in the Vivint Backend.



111. The Vivint Backend monitors location data, including data provided by Vivint Car Guard and analyzes it together with other monitoring data when deciding whether an

alert to the user should be generated. When the Vivint system determines that the accessed conditions for providing the alert are met, the Vivint Backend causes output of an alert to the user, *e.g.*, as a push notification on the Vivint mobile app on a mobile device.

112. In addition to monitoring location data, Vivint Car Guard also monitors timing related to a trip by allowing an alert recipient to limit the receipt of alert notifications to particular hours during the day.

113. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the '148 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint's website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant's customers and prospective customers; and/or providing technical support or other services for the products to Defendant's customers and prospective customers.

114. Vivint has had knowledge of the '148 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the '148 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the '148 Patent.

115. As a result of Vivint's infringement of the '148 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of

Vivint's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

116. On information and belief, ADC alleges that Vivint's infringement of the '148 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to ADC pursuant to 35 U.S.C. §§ 284–285.

COUNT VI: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 10,026,300

117. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

118. The '300 Patent is entitled "Location Based Monitoring System Alerts", and its inventor is David James Hutz. The '300 Patent application was filed on January 13, 2017, and the patent duly and lawfully issued on July 17, 2018. A true and correct copy of the '300 Patent is attached as Exhibit F.

119. ADC is the assignee of the '300 Patent. ADC has ownership of all substantial rights in the '300 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

120. The '300 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

121. The '300 Patent is generally directed to technological improvements in monitoring system alert technology. In particular, its claims relate to analyzing monitoring system data against rules, determining that an alert is needed, accessing conditions that define geographic threshold distances, analyzing the location of a mobile device with respect to the conditions, and based on a determination that the conditions are met, causing output of the alert.

122. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the '300 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 11 of the '300 Patent without license from ADC.

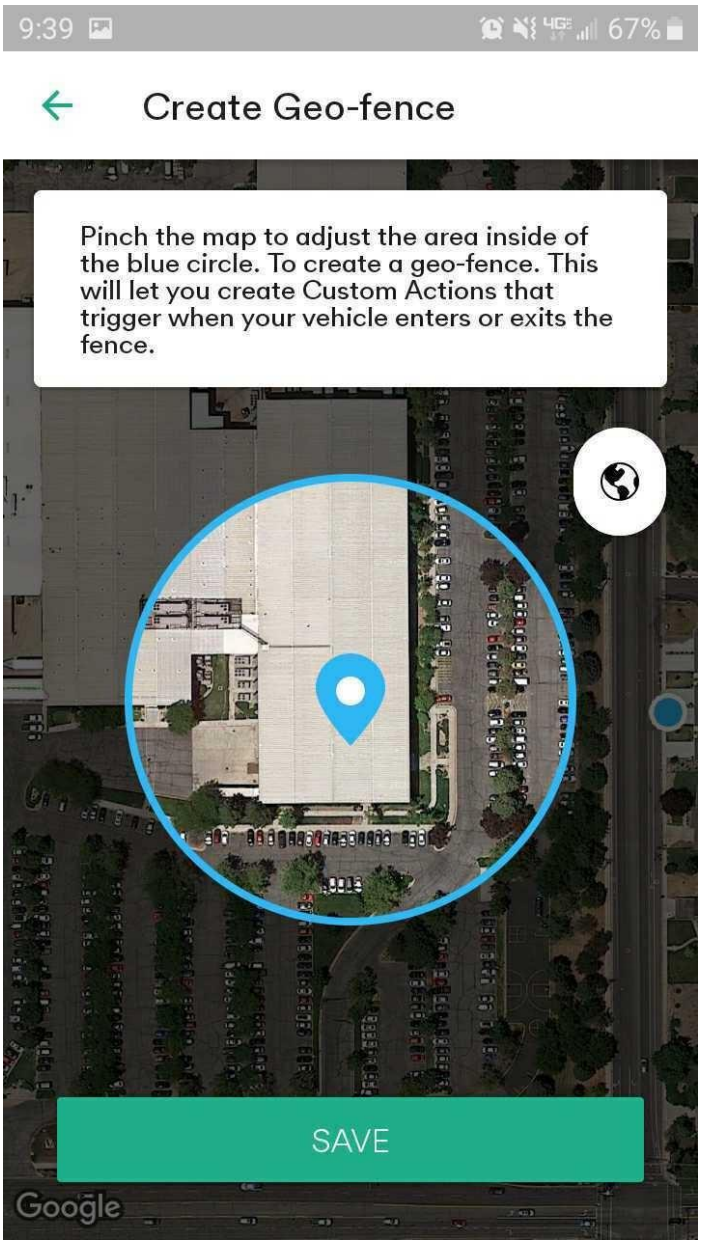
123. Independent claim 11 of the '300 Patent recites:

> A method comprising:
>
> accessing monitoring system data collected by a monitoring system that is located in a property of a user, the monitoring system including sensors;
>
> analyzing the monitoring system data against one or more rules that define alerts provided for the monitoring system;
>
> based on the analysis of the monitoring system data against the one or more rules that define alerts provided for the monitoring system, determining that an alert for the monitoring system is needed to accord with the one or more rules;
>
> accessing conditions for providing the alert, the accessed conditions defining one or more threshold geographic distance conditions that correspond to location of a mobile device of the user associated with the monitoring system;
>
> monitoring location of the mobile device of the user associated with the monitoring system;
>
> analyzing the monitored location of the mobile device with respect to the accessed conditions;
>
> based on the analysis of the monitored location of the mobile device with respect to the accessed conditions, determining that the accessed conditions for providing the alert are met; and
>
> based on the determination that the accessed conditions for providing the alert are met, causing output of the alert.
>
> ('300 Patent, Ex. F, at 30:56–31:17.)

124. For example, and without limitation, the Vivint Backend comprises a system and method for accessing data from monitoring systems that include sensors, such as security sensors; analyzing the data against one or more rules that define alerts; and, based on the analysis, determining if an alert is needed.

125. Vivint Car Guard is an example of a component of a monitoring system that is integrated with the Vivint Backend and Vivint's mobile apps. The Vivint Backend monitors data from Car Guard against various rules that define alert conditions to determine if a rule is satisfied.

126. Some types of alerts generated by Car Guard include conditions based on a threshold geographic distance that corresponds to the location of a mobile device of the user. For example, Vivint Car Guard enables alerts that are conditioned on the location of a user's vehicle. Users can receive alerts when their vehicle enters or exits a geo-fence that is defined as a threshold geographic distance from their home. The image below shows an example of such a geo-fence being defined in the Vivint Backend.



127. The Vivint Backend monitors location data, including data provided by Vivint Car Guard and analyzes it together with other monitoring data when deciding whether an alert to the user should be generated. When the Vivint system determines that the accessed conditions for providing the alert are met, the Vivint Backend causes output of an alert to the user, for example in the form of a push notification on the Vivint mobile app.

128. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the ’300 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint’s website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant’s customers and prospective customers; and/or providing technical support or other services for the products to Defendant’s customers and prospective customers.

129. Vivint has had knowledge of the ’300 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the ’300 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the ’300 Patent.

130. As a result of Vivint’s infringement of the ’300 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint’s wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

131. On information and belief, ADC alleges that Vivint’s infringement of the ’300 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney’s fees to ADC pursuant to 35 U.S.C. §§ 284–285.

COUNT VII: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 7,457,834

132. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

133. The '834 Patent is entitled "Aggregation and Retrieval of Network Sensor Data", and its inventors are Edward K. Y. Jung and Clarence T. Tegreene. The '834 Patent application was filed on July 30, 2004, and duly and lawfully issued on November 25, 2008. A true and correct copy of the '834 Patent is attached as Exhibit G.

134. ADC is the assignee of the '834 Patent. ADC has ownership of all substantial rights in the '834 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

135. The '834 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

136. The '834 Patent is generally directed to technological improvements to methods, devices, and systems that aggregate and retrieve network sensor data. In particular, its claims relate to receiving and storing "mote" data, searching the data and, when mote data correlating to a target occurrence is found, providing the correlating data. "Mote" data refers to data that are collected from small networked sensors located on a monitored property.

137. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the '834 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 1 of the '834 Patent without license from ADC.

138. Independent claim 1 of the '834 Patent recites:

> A data system, comprising:
>
> (a) a computing device operable to communicate with a local data storage device and with a remote data storage operable to store a plurality of instances of mote data, each instance of mote data correlating to a respective occurrence; and
>
> (b) instructions, which when implemented in a computing device, cause the computing device to perform steps including:
>
> > (i) receive the plurality of instances of mote data from the remote storage device;
> >
> > (ii) store the received plurality of instances of correlated mote data in the local data storage device;
> >
> > (iii) receive an input selection corresponding to a target occurrence having at least one representative feature;
> >
> > (iv) automatically search the stored plurality of instances of mote data for mote data correlating to the target-occurrence; and
> >
> > (v) if mote data correlating to the target-occurrence is found, provide the correlating mote data.

('834 Patent, Ex. G, at 31:36–56.)

139. For example, and without limitation, the Vivint Backend is configured to receive and store sensor data from the Video Doorbell Camera Pro and Outdoor Camera Pro and automatically search for data corelating to a target occurrence, such as a package being delivered to a user's front door, as shown below.

140. The Vivint Backend comprises a computing device operable to communicate with a local data storage device and with a remote data storage device operable to store a plurality of instances of mote data, each instance of mote data correlating to a respective occurrence.

141. The Vivint Doorbell Camera Pro and Outdoor Camera Pro implement instructions that cause their respective computing devices to receive and store data sensed by the camera sensor; receive an input corresponding to a target-occurrence having a representative feature, such as an input indicating the detection of people who enter an area in front of the camera; and automatically search for data relating to the target-occurrence. The Vivint Doorbell

Camera Pro and Outdoor Camera Pro detect people by searching for recognizable patterns that indicate representative features of humans.

142. In response to the input selection, the Vivint Doorbell Camera Pro and Outdoor Camera Pro will automatically search data from the camera sensor for data corresponding to the input selection, such as representative features of people entering a specific area in front of the camera. Vivint advertises its cameras as being able to "intelligently identify and deter real threats"—using its "Smart Deter" technology, the Vivint Doorbell Camera Pro and Outdoor Camera Pro "can distinguish between people, pets and passing cars" to avoid "false alarms".

143. When sensor data correlated to a person entering the specific area is found, the Vivint Doorbell Camera will provide that data to the user. The Vivint Doorbell Camera and Outdoor Camera Pro can also be configured to respond automatically when a target occurrence is detected. For example, the Vivint Doorbell Camera Pro can detect a package and use light and sound to deter package thieves.

144. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the '834 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint's website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant's customers and prospective customers; and/or providing technical support or other services for the products to Defendant's customers and prospective customers.

145. Vivint has had knowledge of the ’834 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the ’834 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the ’834 Patent.

146. As a result of Vivint’s infringement of the ’834 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint’s wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

147. On information and belief, ADC alleges that Vivint’s infringement of the ’834 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney’s fees to ADC pursuant to 35 U.S.C. §§ 284–285.

COUNT VIII: VIVINT’S INFRINGEMENT OF U.S. PATENT NO. 7,536,388

148. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

149. The ’388 Patent is entitled “Data Storage for Distributed Sensor Networks”, and its inventors are Edward K. Y. Jung and Clarence T. Tegreene. The ’388 Patent application was filed on July 30, 2004, and duly and lawfully issued on May 19, 2009. A true and correct copy of the ’388 Patent is attached as Exhibit H.

150. ADC is the assignee of the ’388 Patent. ADC has ownership of all substantial rights in the ’388 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

151. The ’388 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

152. The ’388 Patent is generally directed to technological improvements to methods, devices and systems that store occurrence data gathered by a distributed sensor network. In particular, its claims relate to identifying a representative feature in sensed data, storing correlated data, and deleting the sensed data according to a deletion sequence.

153. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the ’388 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 1 of the ’388 Patent without license from ADC.

154. Independent claim 1 of the ’388 Patent recites:

> An occurrence-data storage system, comprising:
>
> (a) a data storage device;
>
> (b) a plurality of distributed sensor nodes, each sensor node being respectively operable to sense and communicate data related to a parameter;
>
> (c) a computing device coupled with the data storage device and operable to communicate with the plurality of distributed sensor nodes; and
>
> (d) instructions loaded on the data storage device that, when executed by a processor of the computing device, configure the computing device to:

> (i) store an instance of data related to the sensed parameter from a first sensor node of the plurality of sensor nodes in a first sensor data set in the data storage device;
>
> (ii) receive an input selection corresponding to a target occurrence having a representative feature, the representative feature including at least one recognizable pattern of at least one parameter sensed by one or more of the sensor nodes;
>
> (iii) in response to the input selection corresponding to the target-occurrence, automatically search the first sensor data set for data correlating to the target-occurrence representative feature;
>
> (iv) when sensor data correlating to the target-occurrence representative feature is found, store the correlated sensor data in a retained data storage; and
>
> (v) delete the instance of data related to the sensed parameter from the first sensor data set according to a deletion sequence.

('388 Patent, Ex. H, at 32:24–55.)

155. For example, and without limitation, the Vivint Backend is configured to use video from the Video Doorbell Camera Pro and Outdoor Camera Pro to detect, store and automatically delete information about activity captured on video.

156. The Vivint Backend comprises a plurality of distributed sensor nodes that sense data related to parameters of locations being monitored. The Vivint Doorbell Camera contains sensor nodes, including a camera sensor, as well as a data storage device and a computing device.

157. The Vivint Doorbell Camera executes instructions stored on its internal data storage device that cause its computing device to store data sensed by the camera sensor, receive an input selection corresponding to a target-occurrence having a representative feature, such as input indicating the detection of people who enter an area in front of the Vivint Doorbell

Camera. The Vivint Doorbell Camera detects people by searching for recognizable patterns that indicate representative features of humans.

158. In response to the input selection, the Vivint Doorbell Camera will automatically search data from the camera sensor for data corresponding to the input selection, such as representative features of people entering a specific area in front of the Vivint Doorbell Camera.

159. When sensor data correlated to a person entering the specific area is found, the Vivint Doorbell Camera will store a set of sensor data as a video clip on a data storage device. The stored clips will be deleted automatically according to a deletion sequence provided in the stored instructions.

160. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the ’338 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint’s website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant’s customers and prospective customers; and/or providing technical support or other services for the products to Defendant’s customers and prospective customers.

161. Vivint has had knowledge of the ’388 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the ’338 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the ’338 Patent.

162. As a result of Vivint's infringement of the '388 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

163. On information and belief, ADC alleges that Vivint's infringement of the '388 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to ADC pursuant to 35 U.S.C. §§ 284–285.

COUNT IX: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 7,941,188

164. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

165. The '188 Patent is entitled "Occurrence Data Detection and Storage for Generalized Sensor Networks", and its inventors are Edward K. Y. Jung and Clarence T. Tegreene. The '188 Patent application was filed on May 19, 2009, and duly and lawfully issued on May 10, 2011. A true and correct copy of the '188 Patent is attached as Exhibit I.

166. ADC is the assignee of the '188 Patent. ADC has ownership of all substantial rights in the '188 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

167. The '188 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

168. The '188 Patent is generally directed to technological improvements to methods, devices and systems that store occurrence data gathered by a distributed sensor

network. In particular, its claims relate to a system including a data storage component coupled with a processor configured to receive data sensed by a monitoring component, where the processor can search the received data for a target occurrence, such as the breaking of glass, and store the data correlating to that occurrence.

169. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the '188 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 1 of the '188 Patent without license from ADC.

170. Independent claim 1 of the '188 Patent recites:

> A system, comprising:
>
> a processing component; and
>
> a data storage component operatively coupled with the processing component and including one or more instructions that, when executed by the processing component, configure the processing component to:
>
> > receive a sensed data set corresponding to at least one parameter sensed by one or more sensor nodes;
> >
> > access a target-occurrence having at least one representative feature of the at least one parameter;
> >
> > search over at least one interval of time within the sensed data set for data correlating to the target-occurrence, wherein the target-occurrence comprises at least one of a car crash, a riot, a siren, a gun shot, a breaking of glass, an impact noise, a tire screech, an emergency vehicle, a fire, an armored convoy, a physical assault, a weather condition, or an environmental condition; and
> >
> > when data correlating to the target-occurrence is located within the sensed data set, store the data correlating to the target-occurrence.

('188 Patent, Ex. I, at 26:58–27:10.)

171. For example, and without limitation, the Vivint Backend is configured to receive sensor data from the Vivint Doorbell Camera Pro or Outdoor Camera Pro, and can search that data for particular data relating to a target occurrence based on event detection, such as the delivery of a package. That data can then be stored.

172. The Vivint Backend can be configured to receive sensed data from various Vivint products containing sensor nodes.

173. The Vivint Doorbell Camera Pro and Outdoor Camera Pro contain sensor nodes, including a camera sensor, as well as a data storage device and a computing device.

174. The Vivint Doorbell Camera Pro and Outdoor Camera Pro execute instructions stored on their respective internal data storage devices that cause the computing device to receive data sensed by the camera sensor corresponding to at least one parameter sensed by one or more sensor nodes; access a target-occurrence having a representative feature of the at least one parameter, such as a target-occurrence indicating the detection of people who enter an area in front of the camera; and search for data relating to the target-occurrence. The Vivint Doorbell Camera Pro and Outdoor Camera Pro detect people by searching for recognizable patterns that indicate representative features of humans.

175. In response to receiving data from the sensor component, the Vivint Doorbell Camera Pro and Outdoor Camera Pro will automatically search data from the camera sensor for data corresponding to a target-occurrence based on representative features of the parameters associated with that target-occurrence, such as the motion associated with the delivery of a package. Vivint advertises its cameras as being able to "intelligently identify and deter real threats"—using its "Smart Deter" technology, the Vivint Doorbell Camera Pro and

Outdoor Camera Pro "can distinguish between people, pets and passing cars" to avoid "false alarms".

176. When sensor data correlated with an event, such as delivery of a package, is found, the Vivint Doorbell Camera Pro or Outdoor Camera Pro will store a set of sensor data as a video clip on a data storage device using Vivint's Smart Clips technology.

177. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the '188 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint's website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant's customers and prospective customers; and/or providing technical support or other services for the products to Defendant's customers and prospective customers.

178. Vivint has had knowledge of the '188 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the '188 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the '188 Patent.

179. As a result of Vivint's infringement of the '188 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

180. On information and belief, ADC alleges that Vivint's infringement of the '188 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to ADC pursuant to 35 U.S.C. §§ 284–285.

COUNT X: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 9,558,447

181. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

182. The '447 Patent is entitled "Computer-Implemented Systems Utilizing Sensor Networks for Sensing Temperature and Motion Environmental Parameters; and Methods of Use Thereof", and its inventors are Edward K. Y. Jung and Clarence T. Tegreene. The '447 Patent application was filed on June 22, 2016, and duly and lawfully issued on January 31, 2017. A true and correct copy of the '447 Patent is attached as Exhibit J.

183. ADC is the assignee of the '447 Patent. ADC has ownership of all substantial rights in the '447 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

184. The '447 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

185. The '447 Patent is generally directed to technological improvements to methods, devices and systems that sense temperature and motion parameters in order to induce a change in the environment. In particular, its claims relate to employing a central processing unit to act on sensed data relating to temperature and motion in order to cause a change in the environment.

186. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the '388 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 1 of the '447 Patent without license from ADC.

187. Independent claim 1 of the '447 Patent recites:

> A computer-implemented method comprising:
>
> electronically and automatically receiving, by at least one programmed central processing unit, via at least one communication link, sensed data from at least one sensor network;
>
> wherein the at least one sensor network comprises a plurality of remotely located recording sensor nodes;
>
> wherein the sensed data comprises environmental data for each environment in which each remotely located recording sensor node is located;
>
> wherein the environmental data is being continuously captured, over a plurality of time periods, by the plurality of remotely located recording sensor nodes, based, at least in part, on a plurality of environmental parameters;
>
> wherein the plurality of environmental parameters comprises:
>
> 1) at least one temperature environmental parameter, and
>
> 2) at least one motion environmental parameter;
>
> wherein each of the plurality of remotely located recording sensor nodes captures the environmental data for at least one respective environmental parameter;
>
> automatically analyzing, by the at least one programmed central processing unit, the sensed data, captured over at least one first time period of the plurality of time periods, to identify a plurality of representative features within the sensed data, wherein each representative feature of the plurality of representative features is represented by particular environmental data of the at least one respective environmental parameter;

> electronically storing, in at least one non-transient database, by the at least one programmed central processing unit, data representative of the plurality of representative features related to the at least one first time period of the plurality of time periods;
>
> electronically establishing, based on at least one pattern recognition criterion, by the at least one programmed central processing unit, a first correspondence of at least one first representative feature from the plurality of representative features to at least one first characteristic of at least one first occurrence and a second correspondence of at least one second representative feature from the plurality of representative features to at least one second characteristic of the at least one first occurrence, wherein at least one first instance of the at least one first occurrence has occurred within the at least one first time period of the plurality of time periods;
>
> electronically discovering, based on the first correspondence and the second correspondence, by the at least one programmed central processing unit, at least one second instance of the at least one first occurrence within the sensed data captured over at least one second time period of the plurality of time periods, wherein the at least one first occurrence has taken place in at least one first environment associated with at least one first remotely located recording sensor node; and
>
> electronically causing, based on the discovery of the at least one second instance of the at least one first occurrence in the at least one first environment, by the at least one programmed processing unit, via at least one electronically-controlled device, at least one change in the at least one first environment.
>
> ('447 Patent, Ex. J, at 29:30–30:27.)

188. For example, and without limitation, the Vivint Backend is configured to continuously receive sensed environmental data from a sensor network comprised of multiple sensor nodes, such as the Vivint Smart Thermostat and the location service features of the Vivint Smart Assistant, based on certain environmental parameters

189. The Vivint Backend comprises a plurality of distributed sensor nodes that sense data related to environmental parameters of locations being monitored. For example, the Vivint Smart Thermostat captures data related to temperature and the Vivint Smart Assistant can

track the movement and location data of an individual over multiple time periods. The Vivint Smart Assistant uses sensors on a monitored property to determine if an individual is home, and adjust the thermostat accordingly.

190. Depending on the data captured in each time period, the Vivint Backend can analyze the data relating to environmental parameters and establish pattern recognition criteria to, for example, correspond sensed movement data with changes in temperature data.

191. Based on the sensed movement data, the Smart Assistant can induce a change in environment of a property (*i.e.*, the temperature controlled by the Vivint Smart Thermostat) that corresponds with the recognized pattern.

192. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the ’447 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint’s website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant’s customers and prospective customers; and/or providing technical support or other services for the products to Defendant’s customers and prospective customers.

193. Vivint has had knowledge of the ’447 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the ’447 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the ’447 Patent.

194. As a result of Vivint's infringement of the '447 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

195. On information and belief, ADC alleges that Vivint's infringement of the '447 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to ADC pursuant to 35 U.S.C. §§ 284–285.

COUNT XI: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 8,612,591

196. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

197. The '591 Patent is entitled "Security System with Networked Touchscreen", and its inventors are Paul J. Dawes, Jim Fulker and Carolyn Wales. The '591 Patent application was filed on August 25, 2008, and duly and lawfully issued on December 17, 2013. A true and correct copy of the '591 Patent is attached as Exhibit K.

198. ADC's wholly owned subsidiary ICN is the assignee of the '591 Patent. ICN has ownership of all substantial rights in the '591 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

199. The '591 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

200. The '591 Patent is generally directed to technological improvements in touchscreen controlled security networks. In particular, its claims relate to the use of a

touchscreen controlled panel to communicate with devices on a local network and a central security server. This allows for remote premises monitoring and control functionality through the use of client devices connected to the panel through the central security server.

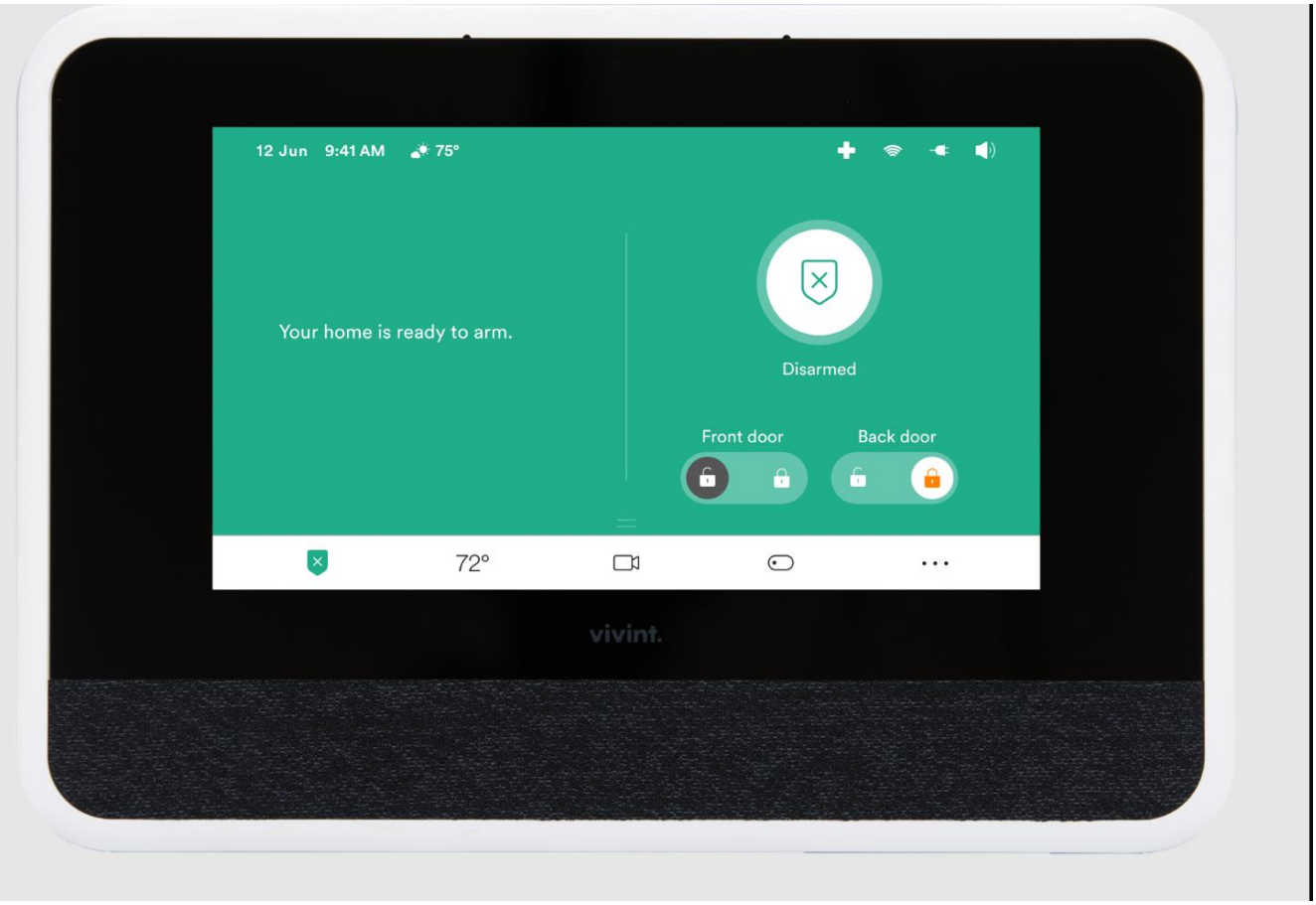
201. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the '591 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 1 of the '591 Patent without license from ICN.

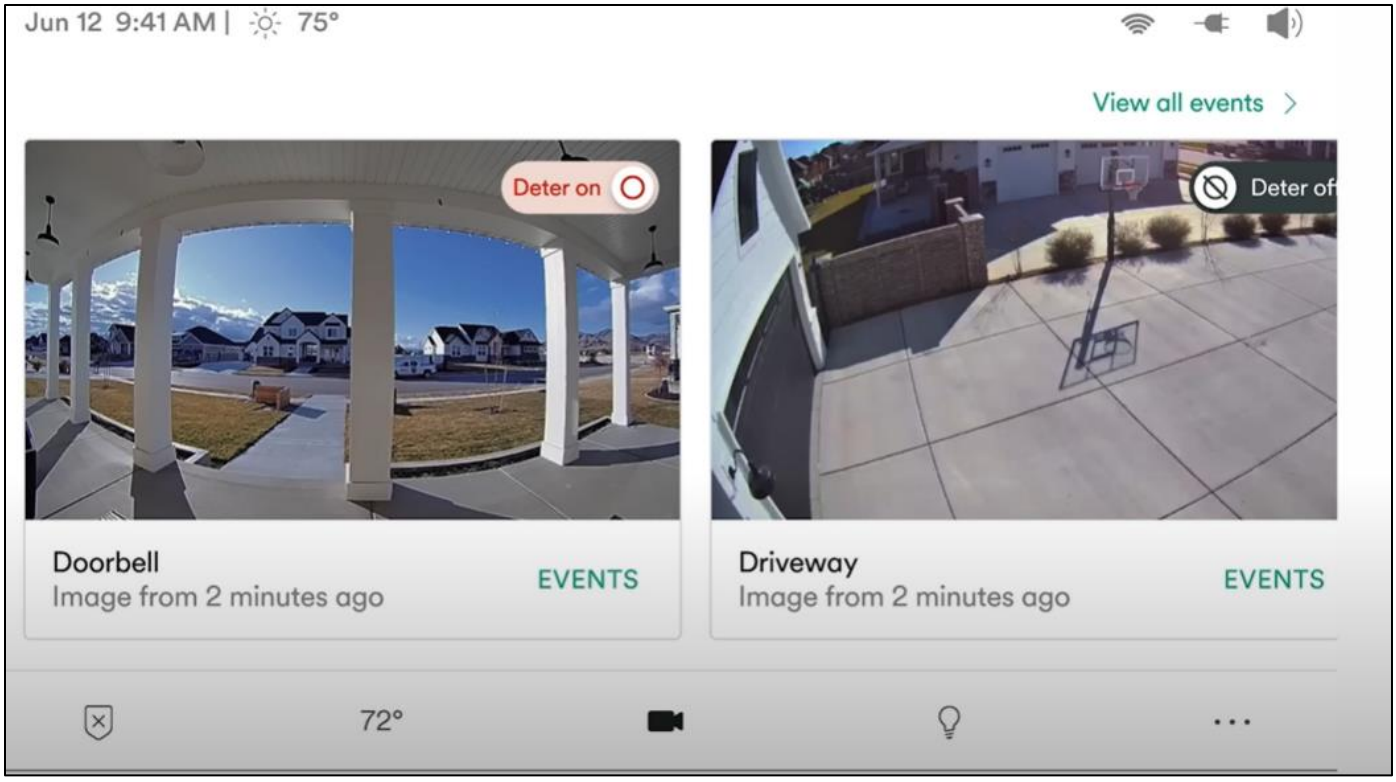
202. Independent claim 1 of the '591 Patent recites:

> A system comprising:
>
> a touchscreen at a first location, wherein the touchscreen includes a processor coupled to a local area network (LAN) and a security system at the first location;
>
> a plurality of user interfaces presented via the touchscreen, wherein the plurality of user interfaces include a security interface and a network interface, wherein the security interface provides control of functions of the security system and access to data collected by the security system, wherein the network interface provides access to data of devices of the LAN and a remote network coupled to the LAN; and
>
> a security server coupled to the touchscreen and the remote network, the security server located at a second location different from the first location, wherein the security server comprises a client interface through which remote client devices exchange data with the security server, the security system, and the devices of the LAN.
>
> ('591 Patent, Ex. K, at 51:16–33.)

203. For example, and without limitation, the Vivint Smart Hub includes a touchscreen controlled panel containing a processor that connects the panel to a local area network together with various security sensors at a monitored property.

204. A touchscreen panel presents various user interfaces, including a security interface and a network interface. The images below show an example of the Vivint Smart Hub panel displaying the security and camera network interfaces.





205. The Vivint Smart Hub panel allows the transmission of video data captured by the various monitoring devices connected to the panel through the local area network to the Vivint Backend's security servers. The Vivint Backend can also be connected to various remote client devices (such as mobile phones) that exchange data with the Backend and the security system and the devices connected to the system over the local area network. In that way, the remote client devices can receive data from the security system and transmit commands in response to the data received.

206. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the '591 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint's website and mobile application; establishing distribution channels for these products in the United States; drafting,

distributing, or making available product specifications, instructions, or user manuals for the products to Defendant's customers and prospective customers; and/or providing technical support or other services for the products to Defendant's customers and prospective customers.

207. Vivint has had knowledge of the '591 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the '591 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the '591 Patent.

208. As a result of Vivint's infringement of the '591 Patent, ADC and ICN have been damaged and will continue to suffer damages in the future. ADC and ICN are entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

209. On information and belief, ICN alleges that Vivint's infringement of the '591 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to ADC and ICN pursuant to 35 U.S.C. §§ 284–285.

COUNT XII: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 9,172,553

210. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

211. The '553 Patent is entitled "Security System with Networked Touchscreen and Gateway", and its inventors are Paul J. Dawes, Jim Fulker and Carolyn Wales. The '553

Patent application was filed on August 25, 2008, and duly and lawfully issued on October, 27 2015. A true and correct copy of the '553 Patent is attached as Exhibit L.

212. Alarm.com's wholly owned subsidiary ICN is the owner and assignee of the '553 Patent. ICN has ownership of all substantial rights in the '553 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

213. The '553 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

214. The '553 Patent is generally directed to technological improvements in touchscreen controlled security networks. In particular, its claims relate to the use of a touchscreen controlled panel to communicate with devices on a local network and a central security server. This allows for remote premises monitoring and control functionality through the use of client devices connected to the panel through the central security server.

215. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the '553 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 1 of the '553 Patent without license from ICN.

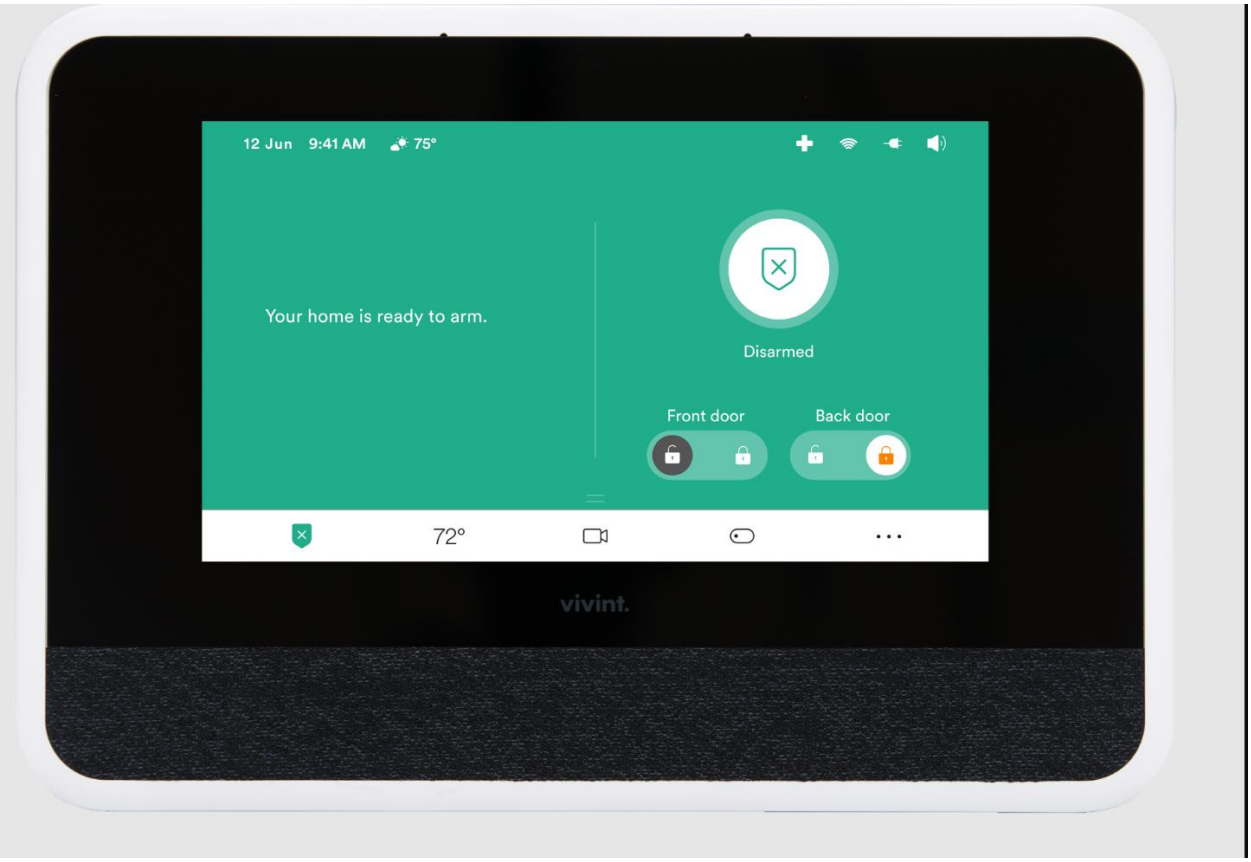
216. Independent claim 1 of the '553 Patent recites:

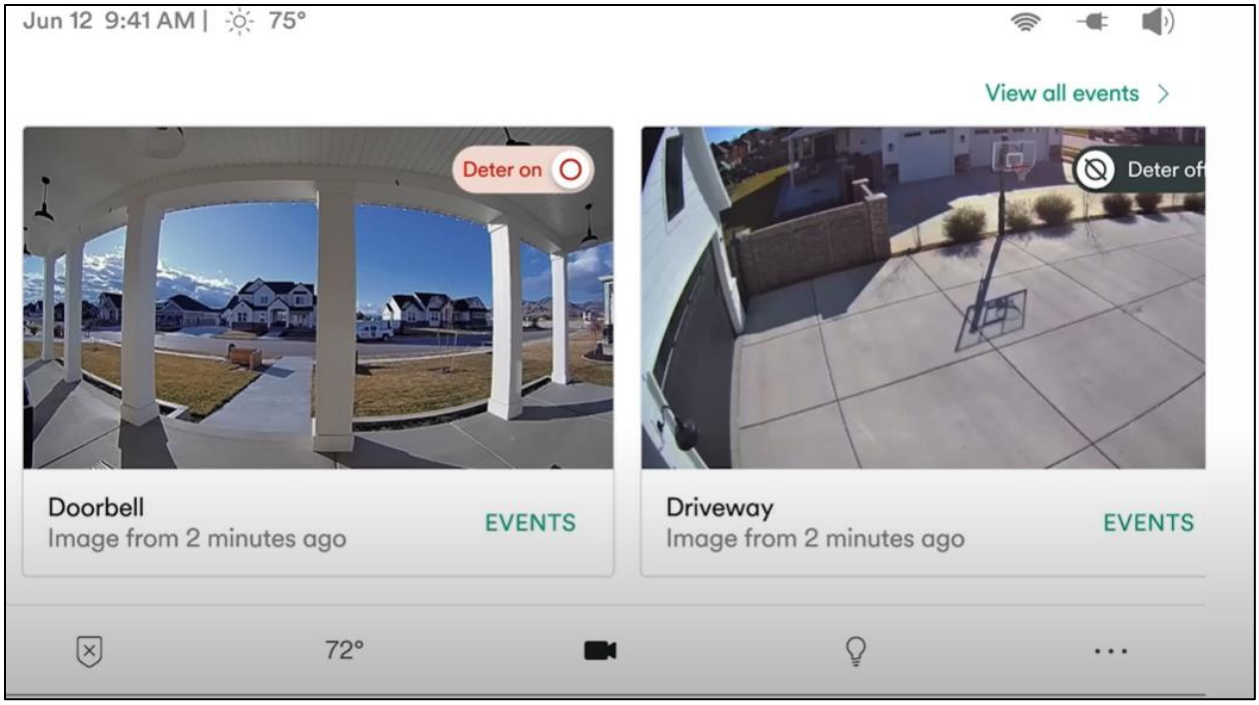
> A system comprising:
>
> a gateway at a first location, the gateway coupled to a local area network (LAN) and a security system of the first location, wherein the security system includes a plurality of security system components, the gateway forming a security network by integrating functions of the security system with the LAN, wherein the gateway comprises a client interface through which remote client devices exchange data with the security system and devices coupled to the LAN;

> a touchscreen coupled to the gateway, the touchscreen including a plurality of interfaces presented to a user, wherein the plurality of interfaces include a security interface and a network interface, wherein the security interface provides control of functions of the security system and access to data collected by the security system, wherein the network interface provides access to data of the devices coupled to the LAN.
>
> ('553 Patent, Ex. L, at 51:14–31.)

217. For example, and without limitation, the Vivint Smart Hub contains a component/processor which acts as a gateway in integrating security systems components over a local area network to form a security network. The Smart Hub couples the gateway to a touchscreen panel at the monitored property.

218. The Smart Hub's touchscreen panel presents a plurality of user interfaces, including a security interface and a network interface, as shown below.





219. The security interface allows a user to control functions of the security system and access data collected by the security system, while the network interface provides access to data collected by various monitoring components, such as the Vivint Indoor Camera.

220. The Vivint Backend can also be connected to various remote client devices (such as mobile phones) that exchange data with the backend and the security system and the devices connected to it over the local area network using the Vivint mobile app.

221. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the ’553 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint’s website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the

products to Defendant's customers and prospective customers; and/or providing technical support or other services for the products to Defendant's customers and prospective customers.

222. Vivint has had knowledge of the '553 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the '553 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the '553 Patent.

223. As a result of Vivint's infringement of the '553 Patent, ADC and ICN have been damaged and will continue to suffer damages in the future. ICN and ADC are entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

224. On information and belief, ICN alleges that Vivint's infringement of the '553 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to ADC and ICN pursuant to 35 U.S.C. §§ 284–285.

COUNT XIII: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 9,141,276

225. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

226. The '276 Patent is entitled "Integrated Interface for Mobile Device", and its inventors are Paul J. Dawes, Jim Fulker, Carolyn Wales, Reza Raji and Gerald Gutt. The '276 Patent application was filed on December 5, 2011, and duly and lawfully issued on September, 22 2015. A true and correct copy of the '276 Patent is attached as Exhibit M.

227. ADC's wholly owned subsidiary ICN is the assignee of the '276 Patent. ICN has ownership of all substantial rights in the '276 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

228. The '276 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

229. The '276 Patent is generally directed to technology enabling the display of home security system monitoring information on a mobile device. In particular, its claims relate to synchronization between a monitoring system and a mobile device where the mobile device displays status information related to the monitoring system based on data communications and enables a user to provide user input to control the monitoring system.

230. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the '276 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 1 of the '276 Patent without license from ICN.

231. Independent claim 1 of the '276 Patent recites:

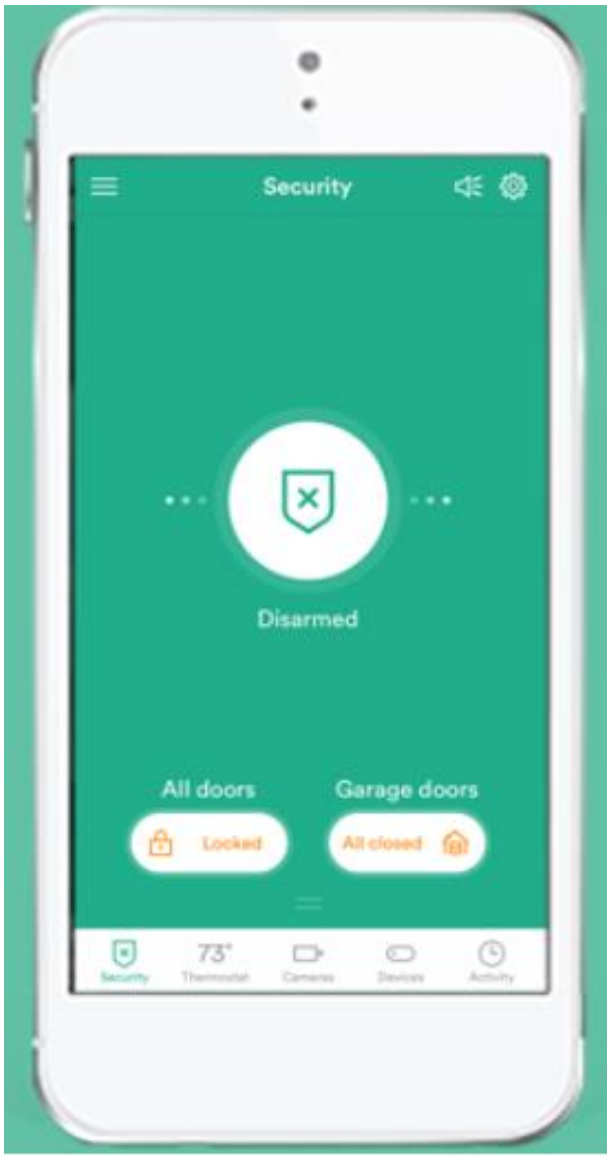
> A security system comprising:
>
> a monitoring system that is configured to monitor a premise, the monitoring system including a sensor that is installed at the premise, the sensor being adapted to sense a status of the premise; and
>
> a mobile device that is provided separately from the monitoring system by a company that is different than a company that provides the monitoring system, the mobile device including applications that, when run on the mobile device, perform operations comprising:
>
> performing an association to synchronize the mobile device with the monitoring system;

> based on the synchronization, receiving by the mobile device one or more data communications descriptive of sensor events detected by the monitoring system at the premise;
>
> displaying, on a display of the mobile device, a status interface area that includes status information related to the monitoring system based on the received one or more data communications;
>
> displaying, on the display of the mobile device, a control interface area that enables a user to provide user input to control the monitoring system;
>
> receiving user input defining a control operation for the monitoring system based on the control interface area; and
>
> based on the received user input and the synchronization, sending one or more control communications that cause the monitoring system to perform the control operation defined by the received user input.
>
> ('276 Patent, Ex. M, at 51:2–31.)

232. For example, and without limitation, the Vivint Smart Hub provides a home monitoring system that can synchronize with a mobile device using the Vivint App, such that the mobile device can display status information about the monitoring system, such as whether the system is armed or disarmed or whether certain doors are locked or unlocked.

233. The Vivint App can be downloaded on a third-party provided mobile phone, and the home monitoring system can synchronize with the mobile phone to allow the phone to receive communications regarding events detected by Vivint's security sensors.

234. Using this synchronization with the monitoring system, the mobile device can then display on a user interface information about the status of the monitoring system. As shown below, for example, the mobile device can display the lock status of various doors throughout the monitored premises.



235. The user of the mobile device can then provide their input to control the monitoring system, after which the mobile device will communicate with the monitoring system such that it performs the indicated function.

236. On information and belief, Vivint has had knowledge of the ’276 Patent since at least August 8, 2017, when Alarm.com publicly asserted the ’276 Patent in litigation against ipDataTel in the Eastern District of Texas. *See* Complaint, *Alarm.com Inc. v. ipDataTel, LLC*, No. 2:17-cv-0068 (E.D. Tex. Aug. 24, 2017).

237. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the ’276 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint’s website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant’s customers and prospective customers; and/or providing technical support or other services for the products to Defendant’s customers and prospective customers.

238. As a result of Vivint’s infringement of the ’276 Patent, ADC and ICN have been damaged and will continue to suffer damages in the future. ADC and ICN are entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint’s wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

239. On information and belief, ICN alleges that Vivint’s infringement of the ’276 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney’s fees to ADC and ICN pursuant to 35 U.S.C. §§ 284–285.

COUNT XIV: VIVINT’S INFRINGEMENT OF U.S. PATENT NO. 8,335,842

240. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

241. The ’842 Patent is entitled “Premises Management Networking”, and its inventors are Reza Raji and Gerald Gutt. The ’842 Patent application was filed on March 16,

2005, and duly and lawfully issued on December 18, 2012. A true and correct copy of the '842 Patent is attached as Exhibit N.

242. ADC's wholly owned subsidiary ICN is the assignee of the '842 Patent. ICN has ownership of all substantial rights in the '842 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

243. The '842 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

244. The '842 Patent is generally directed to improvements in premises management networking. In particular, its claims relate to a gateway, forming an associative binding between networks and using an assigned server address.

245. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the '842 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 1 of the '842 Patent without license from ICN.

246. Independent claim 1 of the '842 Patent recites:

> A method for premises management networking of a premises management system, the method comprising:
>
> monitoring premises management devices connected to a gateway at a premises, wherein the premises management devices form a plurality of networks, wherein each network of the plurality of networks comprises a plurality of premises management devices forming an autonomous network that is separate and distinct from any other network of the plurality of networks;
>
> controlling the premises management devices, the controlling comprising the gateway selectively forming and controlling an associative binding between the plurality of networks;

> obtaining an assigned server address, and using the assigned server address for all subsequent uplink connections unless the assigned server address is changed later by the system;
>
> initiating, by the gateway, all communications with a network operations center server using the assigned server address; and
>
> communicating, during the communications between the gateway and the network operations center server, information associated with the premises management devices, wherein the assigned server address is an address associated with the network operations center server.
>
> ('842 Patent, Ex. N, at 27:30–55.)

247. For example, and without limitation, the Vivint Smart Hub panel comprises a gateway that connects multiple networks, including local networks comprising premises management devices.

248. On information and belief, the Vivint Smart Hub can control locally-connected premises management devices and control associations between these devices across networks. For example, Vivint offers the Vivint Smart Hub as a "single platform" that "seamlessly connects your smart home products" and enables the customer to "manage your entire smart home from the Smart Hub". "Smart Hub", https://www.vivint.com/products/smart-hub. The Smart Hub may be used to control and automate these connected smart home products.

249. On information and belief, the Smart Hub can obtain an assigned server address in order to initiate, by the gateway, communication with a network operations server, the Vivint Backend. During this communication between the gateway and the Vivint Backend, the Smart Hub can communicate information associated with the various premises management devices that are associated with the Smart Hub. For example, the Smart Hub can communicate information to the user regarding the armed or disarmed status of the monitoring system or the locked status of certain door sensors. The Smart Hub can also communicate information to the

Vivint Backend with "just one tap" if the user wants to, for example, lock the doors, turn off lights, adjust a thermostat or arm the alarm system. "Smart Hub", https://www.vivint.com/products/smart-hub.

250. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the '842 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint's website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant's customers and prospective customers; and/or providing technical support or other services for the products to Defendant's customers and prospective customers.

251. Vivint has had knowledge of the '842 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the '842 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the '842 Patent.

252. As a result of Vivint's infringement of the '842 Patent, ADC and ICN have been damaged and will continue to suffer damages in the future. ADC and ICN are entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

253. On information and belief, ICN alleges that Vivint's infringement of the '842 Patent has been and continues to be deliberate and willful, and, therefore, this is an

exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to ADC and ICN pursuant to 35 U.S.C. §§ 284–285.

COUNT XV: VIVINT'S INFRINGEMENT OF U.S. PATENT NO. 8,860,804

254. The allegations set forth in paragraphs 1–37 are hereby realleged and incorporated by reference herein.

255. The '804 Patent is entitled "Automated Upload of Content Based on Captured Event", and its inventors are Babak Rezvani; Jack L. Chen, Edward B. Kalin and Reza Jalili. The '804 Patent application was filed on April 27, 2010, and duly and lawfully issued on October 14, 2014. A true and correct copy of the '804 Patent is attached as Exhibit O.

256. ADC is the assignee of the '804 Patent. ADC has ownership of all substantial rights in the '804 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement.

257. The '804 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

258. The '804 Patent is generally directed to technological improvements to systems and methods for automatically capturing, uploading and publishing content. In particular, its claims relate to capturing content in response to a detected event and publishing the content on a remote site where it is accessible through a registered user account.

259. In violation of 35 U.S.C. § 271(a), Vivint has directly infringed and continues to directly infringe, both literally and/or under the doctrine of equivalents, the '804 Patent by making, using, offering for sale, selling and/or importing devices and/or systems in the United States, including within this judicial district, that infringe at least claim 1 of the '804 Patent without license from ADC.

260. Independent claim 1 of the ’804 Patent recites:

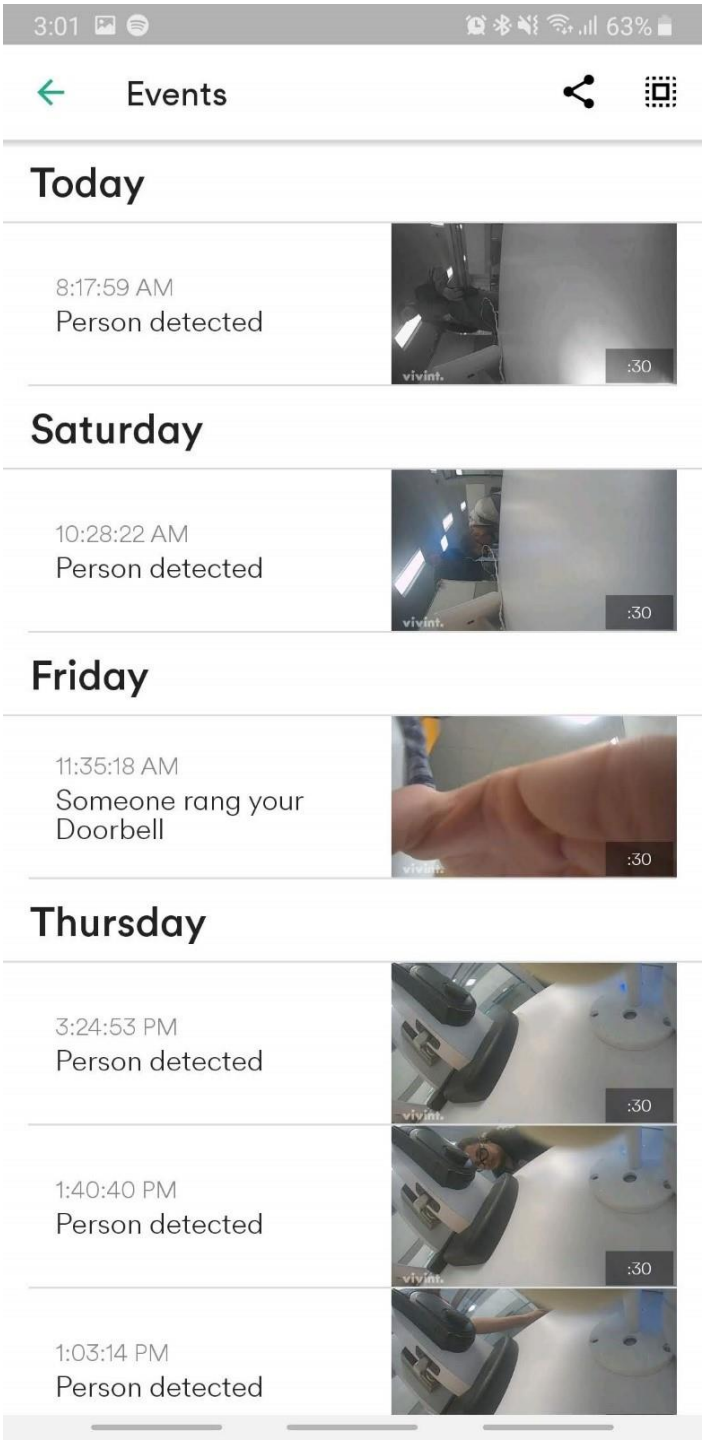
> A method for providing remote access to captured content, comprising:
>
> in response to receiving locally captured content and metadata associated with the locally captured content from a capture device, associating the locally captured content with a user account associated with the capture device;
>
> obtaining, from the metadata, a virtual representation of a user interface of the capture device to be used on a virtual interface of a user access device different than the capture device;
>
> providing, via a processor, the virtual representation obtained from the metadata to the user access device to enable the user access device to display the virtual representation of the user interface of the capture device on the virtual interface of the user access device; and
>
> providing the locally captured content to the user access device.
>
> (’804 Patent, Ex. O, at 21:24–40.)

261. For example, and without limitation, the Vivint Backend receives locally captured content and associated metadata from capture devices, such as the Vivint Doorbell Camera Pro. The Vivint Backend associates the received captured content with the user account for the capture device that generated the captured content.

262. The Vivint Backend obtains, from the metadata associated with the captured content, a virtual representation of a user interface for the capture device. The virtual representation can be used on a virtual interface of a user access device that is different from the capture device (for example, the user’s mobile device, such as an iPhone).

263. The Vivint Backend, which includes a processor, provides the virtual representation of the captured content to the user’s mobile device by means of the Vivint mobile app . These apps enable the display of the virtual representation to the user. The apps also

provide the captured content to the user in the form of video clips. An example of a Vivint mobile app providing captured content to the user in the form of video clips is shown below.



264. Through the Vivint mobile apps, the virtual representation allows playback of video and audio data captured by the capture device, rewind functionality, two-way talk and other ways of interacting with the capture device.

265. In violation of 35 U.S.C. § 271(b), Vivint has induced its customers and continues to induce its customers to directly infringe, both literally and/or under the doctrine of equivalents, the ’804 Patent by taking actions that include, but are not limited to advertising its products and services and their infringing uses, including on Vivint’s website and mobile application; establishing distribution channels for these products in the United States; drafting, distributing, or making available product specifications, instructions, or user manuals for the products to Defendant’s customers and prospective customers; and/or providing technical support or other services for the products to Defendant’s customers and prospective customers.

266. Vivint has had knowledge of the ’804 Patent since at least the filing date of this Complaint. On information and belief, Vivint had actual or constructive knowledge and notice of the ’804 Patent prior to the filing of this Complaint because Vivint and ADC are competitors in the home security and automation market. As such, Vivint knew, should have known or was willfully blind as to the existence of the ’804 Patent.

267. As a result of Vivint’s infringement of the ’804 Patent, ADC has been damaged and will continue to suffer damages in the future. ADC is entitled to recover for damages, including in the form of lost profits and/or a reasonable royalty sustained as a result of Vivint’s wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

268. On information and belief, ADC alleges that Vivint’s infringement of the ’804 Patent has been and continues to be deliberate and willful, and, therefore, this is an

exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to ADC pursuant to 35 U.S.C. §§ 284–285.

JURY DEMAND

269. ADC demands a trial by jury on all issues triable as such.

PRAYER FOR RELIEF

WHEREFORE, ADC and ICN respectfully request that this Court enter judgment for them and against Vivint as follows:

A. That Vivint has infringed, and continues to infringe, either literally and/or under the doctrine of equivalents, each of the Patents-in-Suit;

B. That Vivint and its respective officers, agents, employees, and those acting in privity with them, be permanently enjoined from further direct and/or indirect infringement of the Patents-in-Suit;

C. That Vivint pay damages adequate to compensate ADC for its infringement, together with interest and costs, arising out of (1) Vivint's past infringement of the Patents-in-Suit; (2) Vivint's ongoing infringement of the Patents-in-Suit; and (3) enhanced damages pursuant to 35 U.S.C. § 284;

D. That Vivint be ordered to pay pre-judgment and post-judgment interest on the damages assessed;

E. That Vivint be ordered to pay supplemental damages to ADC, including interest, with an accounting, as needed, of all infringements and/or damages not presented at trial;

F. That Vivint's infringement is willful and that the damages awarded to ADC should be enhanced up to three times the actual damages awarded;

G. That ADC be awarded damages for its costs, disbursements, expert witness fees, and attorneys' fees and costs incurred in prosecution this action, with interest, including damages for an exceptional case pursuant to 35 U.S.C. § 285 and as otherwise provided by law;

H. An order requiring Vivint to pay an ongoing royalty in an amount to be determined for any continued infringement after the date judgment is entered; and

I. An award to ADC of such further relief at law or in equity as the Court deems just and proper.

Dated: January 4, 2023

Respectfully Submitted,

/s/ Melissa R. Smith

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