

of the State of Texas.

5. Upon information and belief, Samsung Electronics Co., Ltd. (individually, “SEC”), is a corporation organized under the laws of Korea, with its principal place of business located at 416 Maetan3-Dong, Yeongtong-Gu, Suwon-Shi, South Korea, where it can be served with process. Upon information and belief, SEC is authorized to do business in Texas. SEC designs, manufactures, and provides to the U.S. and world markets a wide range of products, including consumer electronics, computer components, and myriad mobile and entertainment products.

6. Upon information and belief, Samsung Electronics America, Inc. (individually, “SEA”), is a corporation organized under the laws of the State of New York with its principal place of business at 85 Challenger Road, Ridgefield Park, New Jersey 07660 and is authorized to do business in Texas. SEA may be served by serving its registered agent CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136. On information and belief, SEA was formed in 1977 as a subsidiary of SEC and markets, sells, and/or offers for sale a variety of consumer electronics.

7. Upon information and belief, SEA maintains regular and established places of business in this District in both Richardson and Plano, Texas. On information and belief, prior to January 1, 2015, Samsung Telecommunications America, LLC (individually, “STA”) was a Delaware limited liability company with its principal place of business at 1301 East Lookout Drive, Richardson, Texas 75082. STA was founded in 1996 as a subsidiary of SEC and marketed, sold, and/or offered for sale a variety of personal and business communications devices in the United States, including cell phones. Effective January 1, 2015 STA merged with and into SEA, and therefore, STA ceased to exist as a separate entity. After that merger, a court in this District held: “STA serves as a sales division for SEC mobile devices in the United States. It imports and

sells SEC mobile devices, tablets, and network infrastructure.” *Ziilabs Inc., Ltd. v. Samsung Elecs. Co.*, No. 2:14-CV-203-JRG-RSP, 2015 WL 5278744, at *1 (E.D. Tex. Sept. 9, 2015). As a result of the merger, SEA has assumed all liability of STA arising out of this action. In addition, on information and belief, SEA also maintains a regular and established place of business in this District at 1000 Klein Rd., Plano, Texas.

III. JURISDICTION AND VENUE

8. This is an action for patent infringement which arises under the Patent Laws of the United States, in particular, 35 U.S.C. §§ 271, 281, 283, 284 and 285.

9. This Court has exclusive jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

10. On information and belief, venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b) because Defendant has a regular and established place of business in this district, transacted business in this District, and has committed and/or induced acts of patent infringement in this district.

11. On information and belief, Defendant Samsung is subject to this Court’s specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this Judicial District.

IV. FACTUAL ALLEGATIONS

PATENTS-IN-SUIT

12. PACid is the owner of all right, title and interest in and to U.S. Patent No. 9,577,993 (the “993 Patent”), entitled “System and Method for Authenticating Users,” issued on February

21, 2017.

13. PACid is the owner of all right, title and interest in and to U.S. Patent No. 9,876,771 (the “771 patent”), entitled “System and Method for Authenticating Users,” issued on January 23, 2018.

14. PACid is the owner of all right, title and interest in and to U.S. Patent No. 10,044,689 (the “689 patent”), entitled “System and Method for Authenticating Users,” issued on August 7, 2018.

15. Together, the foregoing patents are referred to herein as the “Patents-in-Suit.” PACid is the assignee of the Patents-in-Suit, and has all rights to sue for infringement and collect past and future damages for the infringement thereof.

16. The claims of the Patents-in-Suit are directed to systems and methods that were not well-understood, routine, or conventional at the time of the application for the Patents-in-Suit. The various claims of the Patents-in-Suit describe inventive features and combinations of features that improved upon prior art systems and methods for communication amongst members of a group and the authentication of members of that group. Some of the improvements provided by the claimed inventions include: (1) the ability to authenticate a member of the group without the need for the user to input a conventional userID and password when the user requests access; (2) increased protection for users of the claimed inventions from malicious actors that may attempt to create and exploit additional entry points into a confidential computer system; and (3) enhanced security of secrets files due to their indistinguishability from other decoy files. The claim language of the Patents-in-Suit and their accompanying specifications and prosecution histories evidence these improvements.

17. All claims of the Patents-in-Suit include specific claim limitations directed to unconventional and special purpose components. For example, the independent claims of the Patents-in-Suit all claim a special purpose software component, the claimed security “application,” that plays an integral role in achieving the goals of the inventions and the corresponding improvements over the prior art. The unconventional nature of the claimed application is apparent when the claims are read in light of the specification of the Patents-in-Suit. For example, in claim 1 of the ’993 patent, the “application” is specifically configured to receive a unique user input and generate a secret based on the unique user input. The claimed systems and methods use of the claimed application alone, or in combination with the other elements of claim 1 of the ’993 patent and other claims of the Patents-in-Suit, signals the technical and innovative nature of the inventions embodied in the various claims of the Patents-in-Suit.

DEFENDANT’S ACTS

18. Samsung is a leading provider of mobile devices, including smart phones. Its mobile devices provide for the generation of a secret using biometrics such as fingerprints, which is used for authentication (e.g., logging into an application or website and/or approval of financial transactions).

19. More specifically, Samsung deploys its products with hardware and software that is compliant with the authentication protocol adopted by the FIDO (Fast IDentity Online) Alliance, employing the FIDO Universal Authentication Framework (UAF).

Building a Modern Authentication Ecosystem



FIDO applications enabled on top 5 global manufacturer's handsets

<https://fidoalliance.org/about/what-is-fido/>.

Stronger security than ever

Defense grade security to protect your biometric data

Your biometric template will be encrypted and secured by Samsung Knox. Samsung Pass adopts FIDO(Fast Identity Online) technology to ensure valid authentications and provide simple and secure biometric authentication services.

<http://www.samsung.com/global/galaxy/apps/samsung-pass/>

20. With FIDO-ready software on the device and biometric sensors such as fingerprint

sensors, users securely and privately communicate between their device and FIDO servers, for authentication (e.g., in the case of Samsung Pass FIDO servers) and/or payment authorization (e.g., in the case of PayPal's payment servers).

21. Combining FIDO authentication with the new secure biometric feature means users no longer need to remember passwords or login details when authenticating to an online service¹ and/or shopping online with their Samsung device. Samsung is one of the world's most trusted handset makers, with a strong presence in more than 150 countries. Samsung's adoption of FIDO into its Samsung Pass Application is designed to improve the security of its end-users. PayPal enables global commerce and processes more than 9 million payments every day. Samsung and PayPal's adoption of FIDO into its PayPal app on a Samsung device is designed to improve security of mobile payments.

22. Users of Samsung's Galaxy S5, for example, benefited and benefit from secure and seamless online, mobile and in-store transactions as a consequence of Samsung's implementation of FIDO.

23. Samsung's Galaxy S6 and S6 Edge, S7 and S7 Edge, S8 and S8 Edge implement similar technical features, providing secure online, mobile and in-store transactions as a consequence of Samsung's implementation of FIDO.

24. For example, at least since the S7, Samsung implements Samsung Pass in its smart phones as shipped, as described at <http://www.samsung.com/global/galaxy/apps/samsung-pass/>.

25. With Samsung Pass, a user's biometric template (including, but not necessarily limited to, fingerprint scan, eye scan and/or face scan) is encrypted and secured by Samsung Knox. Samsung Pass adopts FIDO technology to ensure valid authentications and provide simple and

¹ <http://www.samsung.com/global/galaxy/apps/samsung-pass/>

secure biometric authentication services.

26. Based on information and belief, Samsung has had knowledge of the Patents-in-Suit at least as early as January 2017, when Samsung was provided direct notice of the '993 Patent and other patents owned by Plaintiff. Thus, upon information and belief, Defendant has had notice and actual or constructive knowledge of the Patents-in-Suit, or was willfully blind to the existence of the Patents-in-Suit, at least since that date. Additionally, Defendant has had knowledge of the '993 patent and '771 patent at least as early as the service of Plaintiff's Original Complaint and knowledge of the '689 patent as early as the service of Plaintiff's First Amended Complaint.

27. With knowledge of the Patents-in-Suit, Defendant intentionally provides services and instructions for the installation and infringing operation of infringing products (including, by way of example, the resources and materials available on its website to the customers of its products, who directly infringe through the operation of those products. Samsung further instructs its users in the proper operation of its devices in accordance with its implementation of FIDO UAF, including through its user manuals.

28. On information of belief, Defendant Samsung also implements contractual protections in the form of license and use restrictions with its customers to preclude the unauthorized reproduction, distribution and modification of its software.

29. Moreover, on information and belief, Defendant Samsung implements technical precautions to attempt to thwart customers who would circumvent the intended operation of Samsung's products.

V. COUNTS OF PATENT INFRINGEMENT

COUNT ONE INFRINGEMENT OF U.S. PATENT NO. 9,577,993

30. PACid incorporates by reference its allegations in Paragraphs 1-26 as if fully

restated in this paragraph.

31. PACid is the assignee and owner of all right, title and interest to the '993 Patent. PACid has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

32. On information and belief, Defendant Samsung, without authorization or license from PACid, has been and is presently directly infringing at least claim 1 of the '993 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '993 Patent. Defendant Samsung is thus liable for direct infringement of the '993 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the Galaxy family of products, including the S5, S6, S6 Edge, S7 Edge, S8, S8 Edge and S8+, which include FIDO-ready applications (e.g., Samsung Pass and/or PayPal).

33. On information and belief, at least since the filing of the Original Complaint, Defendant Samsung, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 1 of the '993 Patent, including actively inducing infringement of the '993 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Samsung knows or should know infringe one or more claims of the '993 Patent. Samsung instructs its customers to make and use the patented inventions of the '993 Patent by operating Samsung's products in accordance with Samsung's specifications. Samsung specifically intends its customers to infringe by implementing its accused products in accordance with the FIDO UAF and establishing an authentication framework and architecture that utilizes a unique user input and corresponding secret to authenticate a user.

34. As a result of Samsung's infringement of the '993 Patent, PACid has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT TWO
INFRINGEMENT OF U.S. PATENT NO. 9,876,771

35. PACid incorporates by reference its allegations in Paragraphs 1-31 as if fully restated in this paragraph.

36. PACid is the assignee and owner of all right, title and interest to the '771 Patent. PACid has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

37. On information and belief, Defendant Samsung, without authorization or license from PACid, has been and is presently directly infringing at least claim 1 of the '771 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '771 Patent. Defendant Samsung is thus liable for direct infringement of the '771 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the Galaxy family of mobile phones, including the S5, S6, S6 Edge, S7 Edge, S8, S8 Edge and S8+, which include FIDO-ready applications (e.g., Samsung Pass and/or PayPal).

38. On information and belief, at least since the filing of the Original Complaint, Defendant Samsung, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 1 of the '771 Patent, including actively inducing infringement of the '771 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Samsung knows or should know infringe one or more claims of the '771

Patent. Samsung instructs its customers to make and use the patented inventions of the '771 Patent by operating Samsung's products in accordance with Samsung's specifications. Samsung specifically intends its customers to infringe by implementing its accused products in accordance with the FIDO UAF and establishing an authentication framework and architecture that utilizes a unique user input and corresponding secret to authenticate a user..

39. As a result of Samsung's infringement of the '771 Patent, PACid has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT THREE
INFRINGEMENT OF U.S. PATENT NO. 10,044,689

40. PACid incorporates by reference its allegations in Paragraphs 1-39 as if fully restated in this paragraph.

41. PACid is the assignee and owner of all right, title and interest to the '689 Patent. PACid has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

42. On information and belief, Defendant Samsung, without authorization or license from PACid, has been and is presently directly infringing at least claim 1 of the '689 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '689 Patent. Defendant Samsung is thus liable for direct infringement of the '689 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the Galaxy family of mobile phones, including the S5, S6, S6 Edge, S7 Edge, S8, S8 Edge and S8+, which include FIDO-ready applications (e.g., Samsung Pass and/or PayPal).

43. On information and belief, at least since the filing of the Original Complaint,

Defendant Samsung, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 1 of the '689 Patent, including actively inducing infringement of the '689 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Samsung knows or should know infringe one or more claims of the '689 Patent. Samsung instructs its customers to make and use the patented inventions of the '689 Patent by operating Samsung's products in accordance with Samsung's specifications. Samsung specifically intends its customers to infringe by implementing its accused products in accordance with the FIDO UAF and establishing an authentication framework and architecture that utilizes a unique user input and corresponding secret to authenticate a user.

44. As a result of Samsung's infringement of the '689 Patent, PACid has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

VI. WILLFUL INFRINGEMENT

45. Plaintiff alleges that, upon information and belief, Defendant has been apprised of the '993 Patent and/or related family members in connection with its own prosecution activities, including in connection with Korean Application KR20110128567A. Alternatively, Plaintiff alleges that Defendant has had knowledge of the '993 patent and '771 patent since the filing of Plaintiff's Original Complaint and has knowledge of the '689 patent as of the filing of Plaintiff's First Amended Complaint.

46. Plaintiff further alleges upon information and belief that, at least as early as approximately January 2017, Defendant has knowingly or with reckless disregard willfully infringed one or more of the Patents-in-Suit in a deliberate act of bad faith. Upon information and belief, at least Defendant had actual notice of infringement of one or more of the Patents-in-Suit,

and acted despite an objectively high likelihood that its actions constituted infringement of Plaintiff's valid patent rights.

47. This objectively-defined risk was either known or so obvious that it should have been known to Defendant. Accordingly, Plaintiff seeks enhanced damages pursuant to 35 U.S.C. § 284.

VII. JURY DEMAND

48. Plaintiff PACid demands a trial by jury of all matters to which it is entitled to trial by jury, pursuant to FED. R. CIV. P. 38.

VIII. PRAYER FOR RELIEF

WHEREFORE, PACid prays for judgment and seeks relief against Defendant as follows:

- A. That the Court determine that one or more claims of the Patents-in-Suit is infringed by Defendant Samsung, either literally or under the doctrine of equivalents;
- B. That the Court award damages adequate to compensate PACid for the patent infringement that has occurred, together with prejudgment and post-judgment interest and costs, and an ongoing royalty for continued infringement;
- C. That the Court permanently enjoin Defendant pursuant to 35 U.S.C. § 283;
- D. That the Court award enhanced damages pursuant to 35 U.S.C. §284; and
- E. That the Court award such other relief to PACid as the Court deems just and proper.

DATED: August 27, 2018

Respectfully submitted,

/s/ Andrew G. DiNovo

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