IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

PACID TECHNOLOGIES, LLC,	§ § §	
Plaintiff,	§ §	**CIVIL ACTION NO. 1:24-cv-272**
v.	§ §	**JURY TRIAL DEMANDED**
CITIBANK, N.A.,	§ §	
Defendant.	§ § § §	

COMPLAINT

Plaintiff PACid Technologies, LLC ("Plaintiff" or "PACid"), by and through its attorneys,

for its Complaint against Citibank, N.A. ("Citibank" or "Defendant"), and demanding trial by jury,

hereby alleges as follows:

I.   NATURE OF THE ACTION

1.   This is an action for patent infringement arising under the patent laws of the United

States, 35 U.S.C. §§ 271, *et seq.*, to enjoin and obtain damages resulting from Defendant's

unauthorized use, sale, and offer to sell in the United States of products, methods, processes,

services and/or systems that infringe PACid's United States patents, as described herein.

2.   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 (**Ex. 1**).

3.   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 (**Ex. 2**).

4.   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 (**Ex. 3**).

5.   PACid is the owner of all right, title and interest in and to U.S. Patent No.

10,171,433 (the "'433 Patent"), entitled "System and Method for Authenticating Users," issued on

January 1, 2019 (**Ex. 4**).

6.   PACid is the owner of all right, title and interest in and to U.S. Patent No.

10,484,344 (the "'344 Patent"), entitled "System and Method for Authenticating Users," issued on

November 19, 2019 (**Ex. 5**).

7.   PACid is the owner of all right, title and interest in and to U.S. Patent No.

11,070,530 (the "'530 Patent"), entitled "System and Method for Authenticating Users," issued on

July 20, 2021 (**Ex. 6**).

8.   Together, the foregoing patents are referred to herein as the "Patents." PACid is

the assignee of the Patents, and has all rights to sue for infringement and collect past and future

damages for the infringement thereof.

9.   Defendant manufactures, provides, uses, sells, offers for sale, imports, and/or

distributes infringing products and services; and encourages others to use its products and services

in an infringing manner, including its customers, as set forth herein.

10.   PACid seeks past and future damages and prejudgment and post judgment interest

for Defendant's infringement of the Patents.

II.   PARTIES

11.   Plaintiff PACid is a limited liability company organized and existing under the laws

of the State of Texas.

12.   Upon information and belief, Citibank, N.A. is organized under the laws of New

York, with its principal place of business located at 388 Greenwich Street, New York, NY 10013.

Citibank can be served with process at the Legal Services Intake Unit at 5800 South Corporate Place, Mail Code 451, Sioux Falls, SD 57108. Upon information and belief, Citibank is authorized to do business in the state of Texas.

13.   Upon information and belief, Citibank maintains a regular and established place of business in this District at 100 Citibank Drive, San Antonio, TX 78245.

14.   On information and belief, the Defendant practices, makes, uses, sells, and/or offers to sell patented inventions, individually and/or jointly with others, within the United States, including in Texas and this judicial district. On information and belief, the above location is a regular, continuous, and established physical place of business of Defendant, being established, ratified, and/or controlled by Defendant.

III.   JURISDICTION AND VENUE

15.   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.

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

17.   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 regular and established places of business in this District, transacted business in this District, and has committed, induced, and/or contributed to acts of patent infringement in this District.

18.   On information and belief, Defendant 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 District.

IV.   NOTICE

19.   Defendant gained knowledge of the Patents at least through the filing and service of the Complaint in this action.

V.   FACTUAL ALLEGATIONS

A. PATENTS

20.   The PACid Patents are directed to technical advancements arising within the fields of user authentication and security of communications among computing devices. The claims of the Patents are directed to systems and methods that were not well-understood, routine, or conventional at the time of the application for the Patents. The various claims of the Patents describe inventive features and combinations of features that improved upon prior art systems and methods for communication between and among computing devices and the authentication of users of the devices.

21.   The PACid Patents are directed to improvements to the improved functionality of computers and computer networks that overcome longstanding problems relating to user authentication and security of communications among computing devices. Traditional protection schemes attempt to prevent unauthorized users from accessing confidential information by requiring that a user provide authentication credentials, such as a username and password, at a predefined entry point to access confidential information. These schemes fail to account for vulnerabilities associated with passing authentication credentials across a network. Using knowledge of a user's network connections, hardware, software, and system configuration, nefarious individuals may create other entry points into a network and gain unauthorized access to confidential information.

-5-

22.   Each of the claims is directed to a solution to such problems by disclosing specific improvements in the functionality of computers and computer networks—new systems and methods that provide, among other things: (1) the ability to authenticate a user of a computing device and to transmit encoded communications without the need for the user to transmit a user ID and password across a network to another computing device 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 secret files due to their indistinguishability from other decoy files. The claim language of the Patents and their accompanying specifications and prosecution histories evidence these improvements.

23.   All claims of the Patents include specific claim limitations directed to new, novel, and non-conventional approaches to authentication of users and security of communications among computing devices that were not well-understood or routine. For example, claims of the Patents claim methods and systems that play an integral role in achieving the goals of the inventions and the corresponding improvements over the prior art by, among other things, (1) receiving a unique user input; (2) generating a secret; (3) storing the secret with an identifier on the computing device such that the secret may be retrieved by applying the unique user input to the device; (4) prompting the user to apply the unique input to the device when the device receives a communication from a remote station with the identifier; (5) verifying the unique user input to the computing device; (6) transmitting a communication that is encoded with the secret from the device to the remote station.

24.   The claimed methods and systems allow for authentication of users and encrypted communications among networked computing devices without exposing authentication credentials

-5-

to a third-party attack. For example, upon receipt of a unique user input at the computing device, a secret is generated and stored in a directory on the computing device with an identifier. Instead of transmitting authentication credentials to a remote computer-based station on the network, the user is prompted to apply the user input to the computing device when the device receives a communication with the identifier of the secret. When the unique user input is verified to the user's computing device, a second communication is encoded using the secret and transmitted from the computing device to the remote computer-based station. Because the user's secret is securely stored locally on the computing device and only used upon application of the unique user input to the computing device, it is not subject to attacks by nefarious actors seeking to intercept authentication credentials transmitted across a network like traditional protection schemes.

25.   The unconventional nature of the claimed inventions is apparent when the claims are read in light of the specification and prosecution histories of the Patents. For example, in the Notice of Allowance for the '771 Patent, the Examiner stated as follows:

> Claims 1 - 3, and 5 - 20 are allowable over the prior art since the prior art reference(s) taken individually or in combination fails to particularly disclose, fairly suggest, or render obvious Applicant's novel aspect and claim language of retrieving a stored encrypted secret generated by a mobile phone application on the mobile phone, the encrypted secret stored with an identifier, responsive to the application receiving a unique user input from the user of the phone and responsive to receiving a first communication from a remote computer-based station that includes the identifier, and encoding communication between the remote station and the mobile phone using the secret.

Notice of Allowance, '771 Patent (Sept. 15, 2017).

B. DEFENDANT'S ACTS

26.   Defendant provides software applications designed to direct customers in accessing their bank accounts and conducting transactions via Defendant's servers. Defendant's software applications provide for the generation of a secret after receiving biometrics such as fingerprints or facial physiological characteristics, which are used for authentication (e.g., logging into an

application or website and/or approval of financial transactions). Through its actions, Defendant, individually and/or jointly with others, has infringed the Patents, actively induced others to infringe the Patents, and contributed to the infringement of the Patents by others, throughout the United States.

27.   Defendant offers software applications that implement passkeys and are compliant with and support the authentication protocol adopted by the FIDO (Fast IDentity Online) Alliance, employing the FIDO standard including FIDO Universal Authentication Framework (UAF) ("FIDO Security Standard").
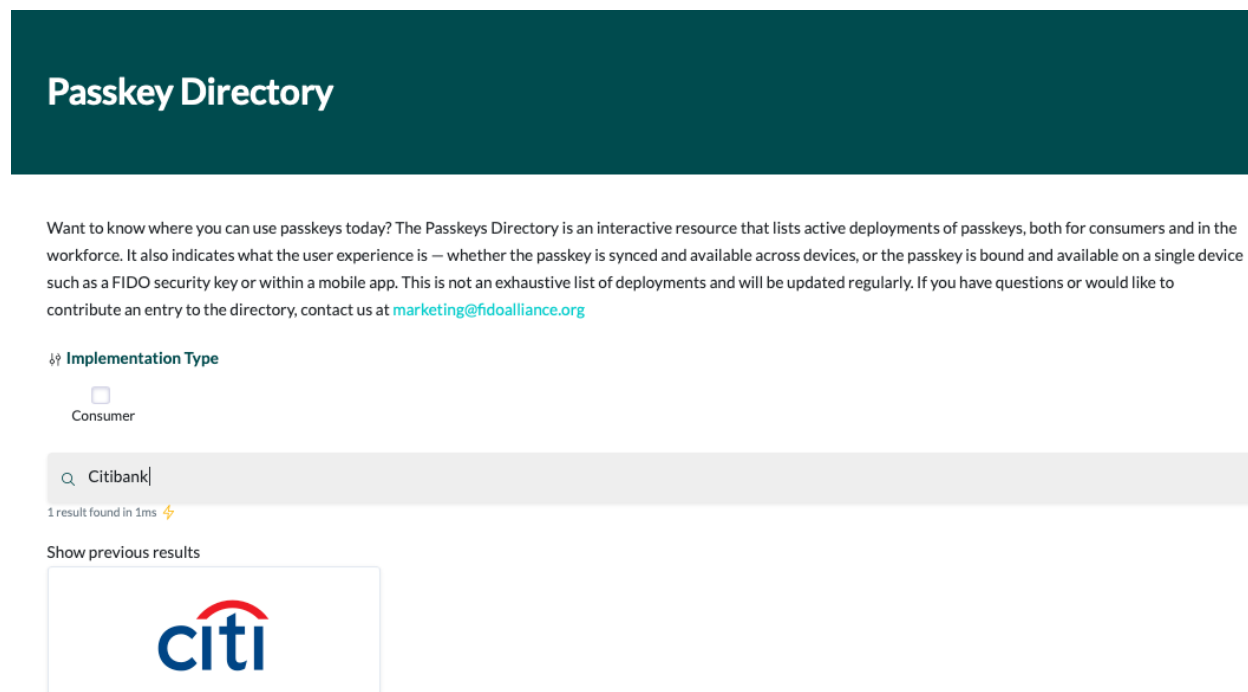
https://fidoalliance.org/passkeys-directory/. FIDO completed and published version 1.0 of the UAF specification in December 2014.

28.   Defendant's software applications ("FIDO-Ready Software") and related servers (collectively, "FIDO-Ready System") enable users to log into their bank accounts with fingerprints and/or facial recognition. Defendant directly and indirectly infringes the Patents by providing and

using—and encouraging, directing, and/or controlling its customers' use of—the FIDO-Ready Software and FIDO-Ready System in compliance with the FIDO Security Standard and/or based upon the allegations set forth in Section V.B. Examples of Defendant's FIDO-Ready Software include mobile applications such as, among others, Citi Mobile.

29.   With Defendant's FIDO-Ready Software and/or FIDO-Ready System, users securely and privately communicate between their devices and Defendant's servers for authentication and/or payment authorization.

30.   Combining FIDO authentication with a secure biometric feature means users no longer need to remember passwords or login details when viewing or managing their bank accounts.

31.   Defendant and users of Defendant's bank accounts and services benefited and continue to benefit from secure and seamless online and mobile and transactions as a consequence of Defendant's implementation of the FIDO Security Standard through Defendant's FIDO-Ready Software and/or FIDO-Ready System.

32.   For example, Defendant rolled out security measures that allow customers to add biometric authentication factors to their accounts that use the FIDO Security Standard. Defendant supports the functionality in at least its FIDO-Ready Software and FIDO-Ready System.

33.   With knowledge of its infringement of the Patents, Defendant advertises the FIDO-based authentication functionality of its FIDO-Ready Software and FIDO-Ready System and intentionally encourages, directs, and/or controls customers to use the infringing authentication functionality by providing services and instructions for the installation of its FIDO-Ready Software and the infringing operation of its FIDO-Ready Software and FIDO-Ready System to its customers, who, like Defendant, directly infringe through the operation of those products.

Defendant further instructs its customers in the proper operation of its FIDO-Ready Software in accordance with its implementation of the FIDO Security Standard.

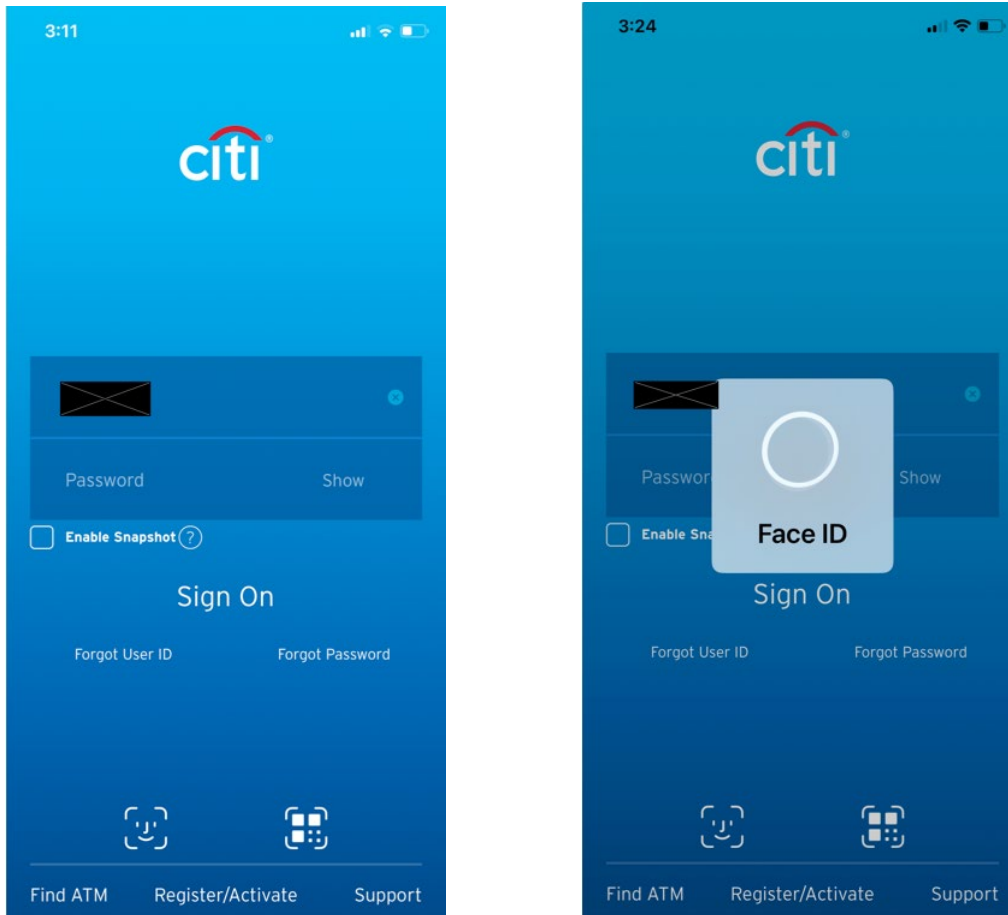34.   Defendant further encourages, directs, and/or controls its customers' use of the infringing FIDO-based authentication functionality in its FIDO-Ready Software and/or FIDO-Ready System as follows:

-10-

-11-
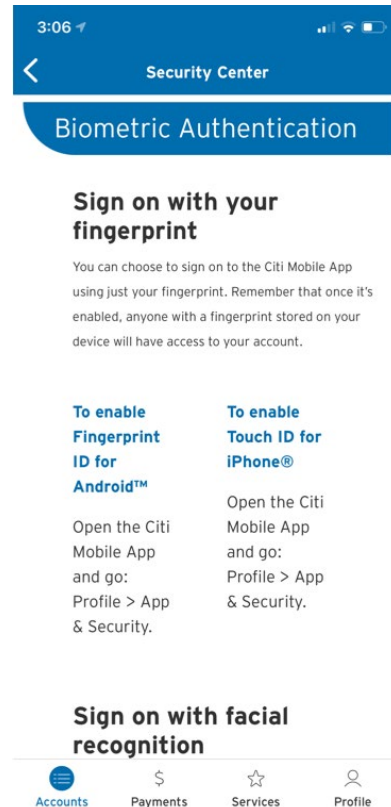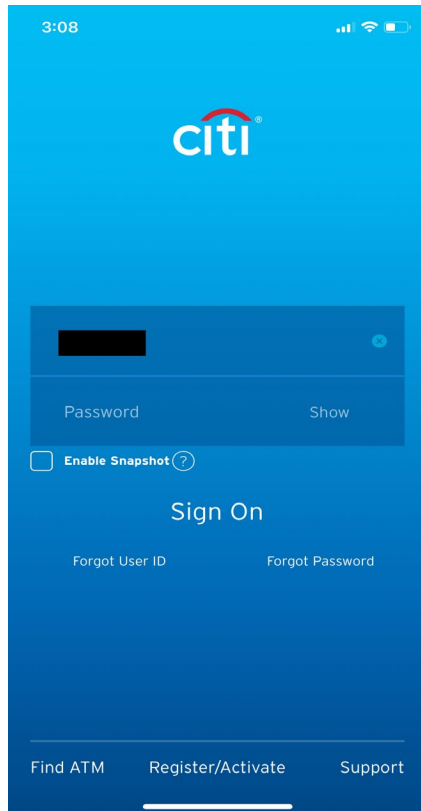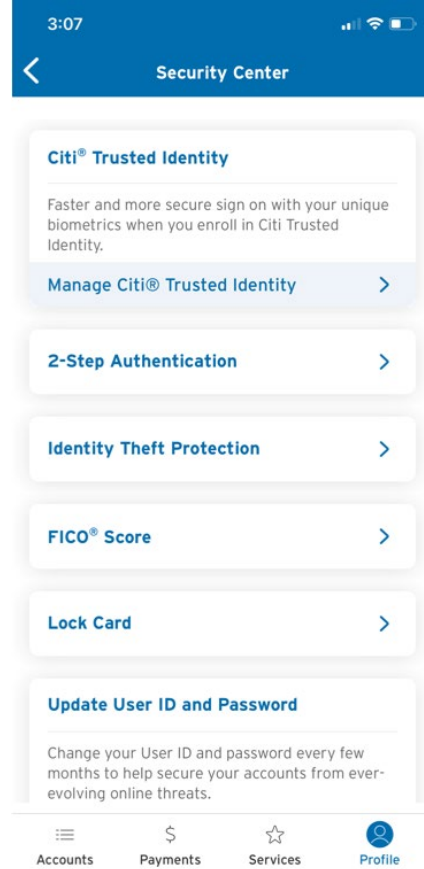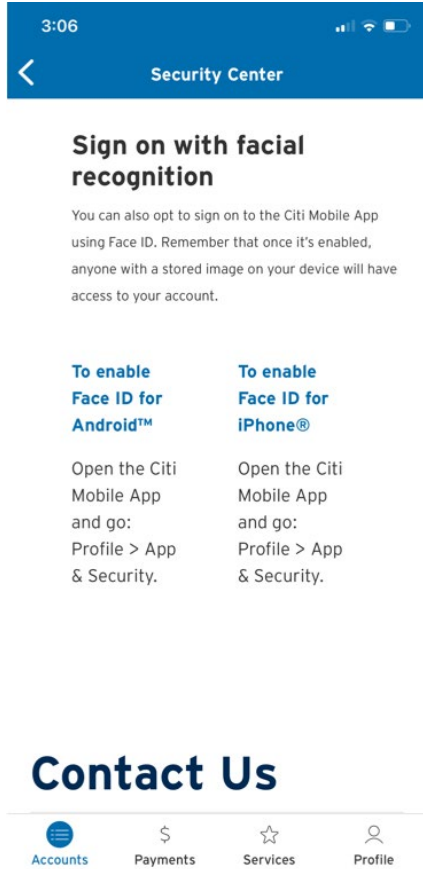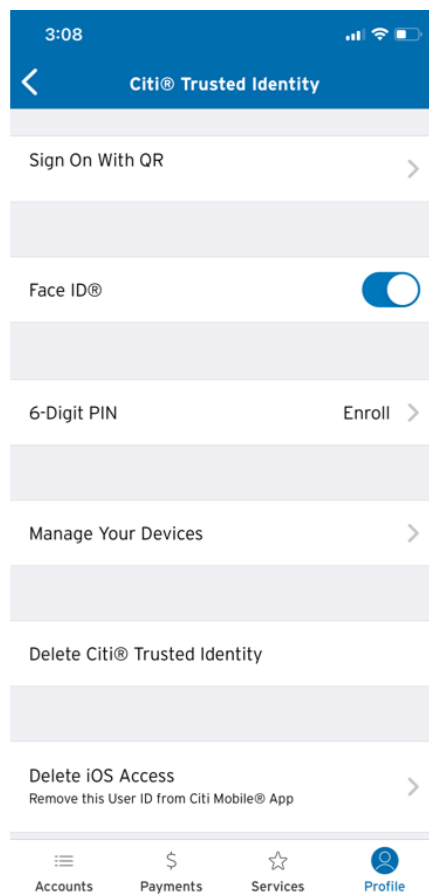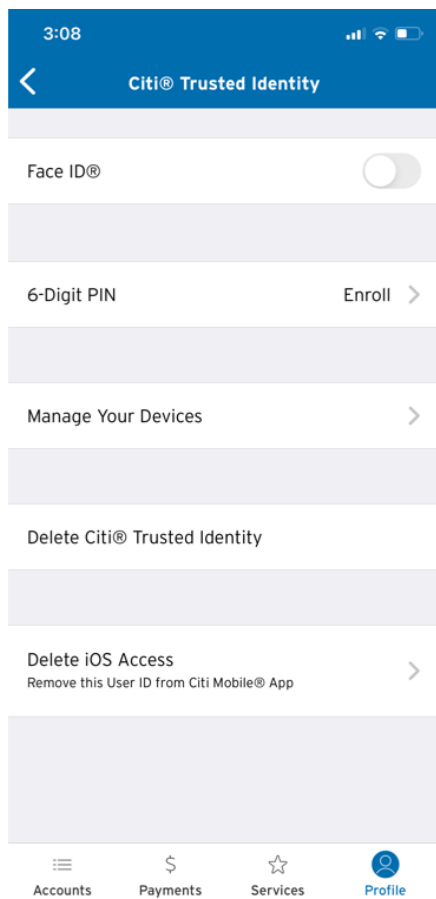
35.   On information and belief, Defendant also implements contractual protections in the form of license and use restrictions with its customers to preclude the unauthorized reproduction, distribution, and modification of its FIDO-Ready Software.

36.   Moreover, on information and belief, Defendant implements technical precautions to thwart its customers from circumventing the intended operation of Defendant's FIDO-Ready Software and/or FIDO-Ready System.

37.   For the reasons stated above, Defendant directly and indirectly infringes the Patents by practicing, providing, and using—and encouraging, directing, and/or controlling its customers' use of—the infringing FIDO-based authentication functionality provided through Defendant's FIDO-Ready Software and/or FIDO-Ready System. Further, Defendant induces its customers to infringe and contribute to such infringement by instructing or specifying that its customers engage

and use the FIDO-based authentication functionality in the Defendant's FIDO-Ready Software and/or FIDO-Ready System in an infringing manner.

38.   The normal, intended operation of Defendant's FIDO-Ready Software and FIDO-Ready System is to provide authentication functionality, as described herein, in support and practice of and in compliance with the FIDO Security Standard, that infringes the Patents. Defendant's FIDO-Ready Software and FIDO-Ready System therefore have no substantial non-infringing uses.

39.   Defendant, therefore, induces its customers to directly infringe the Patents or contributes to the direct infringement of the Patents by its customers.

40.   PACid has been and will continue to suffer damages as a result of Defendant's infringing acts.

VI.   COUNTS OF PATENT INFRINGEMENT

COUNT ONE
INFRINGEMENT OF U.S. PATENT NO. 9,577,993, CLAIMS 1-4, 6, 8-12

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

42.   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.

43.   On information and belief, Defendant, without authorization or license from PACid, has been and is presently directly infringing, individually and/or jointly with others, claims 1-4, 6, and 8-12 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 products that infringe claims 1-4, 6, and 8-12 of the '993 Patent, including Defendant's FIDO-

Ready Software and FIDO-Ready System. Defendant is thus liable for direct infringement of the '993 Patent pursuant to 35 U.S.C. § 271(a).

44.   Defendant jointly infringes claims 1-4, 6, and 8-12 of the '993 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party because the acts of the third party can be legally attributed to Defendant. In such case, Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

45.   Specifically, Defendant provides third parties, including customers and/or end-users, with the FIDO-Ready Software. Through its design and implementation of the FIDO-Ready Software and/or FIDO-Ready System, among other things, Defendant conditions the ability of its customers and end-users to access confidential information using the enhanced security provided by the biometric authentication functionality on the performance of one or more steps of the patented methods by the customers or end-users. Defendant directs and controls its customers and end-users to use the biometric authentication functionality in an infringing manner by providing user instructions and software-implemented prompts for setting-up, activating, and engaging the infringing biometric authentication functionality provided by the FIDO-Ready Software and/or FIDO-Ready System. When Defendant's FIDO-Ready Software and/or FIDO-Ready System is engaged to use FIDO functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs.   Defendant dictates when and how infringement occurs by virtue of providing code in the FIDO-Ready Software and/or FIDO-Ready System that dictates when and how the performance of the infringing functionality occurs.

46.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly

infringing claims 1-4, 6, and 8-12 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 third parties, including Defendant's customers and end-users, to use FIDO-Ready Software and/or the FIDO-Ready System in a manner that Defendant knows or should know infringes one or more claims of the '993 Patent. Defendant instructs its customers and end-users to make and use the patented inventions of the '993 Patent by operating Defendant's products in accordance with Defendant's specifications. Defendant specifically intends its customers and end-users to infringe by implementing its FIDO-Ready Software and/or the FIDO-Ready System in accordance with the FIDO Security Standard and establishing an authentication framework and architecture that utilizes a unique user input and corresponding secret to authenticate a user. Direct infringement is the result of activities performed by third parties in relation to Defendant's FIDO-Ready Software and/or the FIDO-Ready System, including without limitation by third parties enabled and encouraged by Defendant to use the FIDO-Ready Software and/or the FIDO-Ready System in its normal, customary way to infringe the '993 Patent.

47.   On information and belief, at least since the date of the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing claims 1-4, 6, and 8-12 of the '993 Patent, including contributing to the infringement of the '993 Patent under 35 U.S.C. § 271(c) and/or 271(f).

48.   Defendant's FIDO-Ready Software and FIDO-Ready System use the functionality in the FIDO Security Standard. Defendant knows that the FIDO-Ready Software and/or FIDO-Ready System (i) constitute a material part of the inventions claimed in the '993 Patent; (ii) are especially made or adapted to infringe the '993 Patent; (iii) are not staple articles or commodities

of commerce suitable for non-infringing use; and (iv) are components used for or in systems that use the functionality of the FIDO Security Standard.

49.   As a result of Defendant's infringement of claims 1-4, 6, and 8-12 of the '993 Patent, PACid has suffered and continues to suffer 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

50.   PACid incorporates by reference its allegations in Paragraphs 1-49 as if fully restated in this paragraph.

51.   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.

52.   On information and belief, Defendant, without authorization or license from PACid, has been and is presently directly infringing, individually and/or jointly with others, at least claim 9 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 products that infringe at least claim 9 of the '771 Patent, including Defendant's FIDO-Ready Software and FIDO-Ready System. Defendant is thus liable for direct infringement of the '771 Patent pursuant to 35 U.S.C. § 271(a).

53.   Defendant jointly infringes the '771 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party because the acts of the third party can be legally attributed to Defendant. In such case, Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented

method and establishes the manner or timing of that performance.

54.   Specifically, Defendant provides third parties, including customers and/or end-users, with the FIDO-Ready Software. Through its design and implementation of the FIDO-Ready Software and/or FIDO-Ready System, among other things, Defendant conditions the ability of its customers and end-users to access confidential information using the enhanced security provided by the biometric authentication functionality on the performance of one or more steps of the patented methods by the customers or end-users. Defendant directs and controls its customers and end-users to use the biometric authentication functionality in an infringing manner by providing user instructions and software-implemented prompts for setting-up, activating, and engaging the infringing biometric authentication functionality provided by the FIDO-Ready Software and/or FIDO-Ready System. When Defendant's FIDO-Ready Software and/or FIDO-Ready System is engaged to use FIDO functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs.   Defendant dictates when and how infringement occurs by virtue of providing code in the FIDO-Ready Software and/or FIDO-Ready System that dictates when and how the performance of the infringing functionality occurs.

55.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 9 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 third parties, including Defendant's customers and end-users, to use FIDO-Ready Software and/or the FIDO-Ready System in a manner that Defendant knows or should know infringes one or more claims of the '771 Patent. Defendant instructs its customers and end-users to make and use the patented inventions of the '771 Patent

by operating Defendant's products in accordance with Defendant's specifications. Defendant specifically intends its customers and end-users to infringe by implementing its FIDO-Ready Software and/or the FIDO-Ready System in accordance with the FIDO Security Standard and establishing an authentication framework and architecture that utilizes a unique user input and corresponding secret to authenticate a user.   Direct infringement is the result of activities performed by third parties in relation to Defendant's FIDO-Ready Software, and/or the FIDO-Ready System including without limitation by third parties enabled and encouraged by Defendant to use the FIDO-Ready Software and/or the FIDO-Ready System in its normal, customary way to infringe the '771 Patent.

56.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 9 of the '771 Patent, including contributing to the infringement of the '771 Patent under 35 U.S.C. § 271(c) and/or 271(f).

57.   Defendant's FIDO-Ready Software and FIDO-Ready System use the functionality in the FIDO Security Standard. Defendant knows that the FIDO-Ready Software and/or FIDO-Ready System (i) constitute a material part of the inventions claimed in the '771 Patent; (ii) are especially made or adapted to infringe the '771 Patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in systems that use the functionality of the FIDO Security Standard.

58.   As a result of Defendant's infringement of the '771 Patent, PACid has suffered and continues to suffer 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, CLAIMS 1-2, 4-8

59.   PACid incorporates by reference its allegations in Paragraphs 1-58 as if fully restated in this paragraph.

60.   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.

61.   On information and belief, Defendant, without authorization or license from PACid, has been and is presently directly infringing, individually and/or jointly with others, claims 1-2 and 4-8 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 products that infringe claims 1-2 and 4-8 of the '689 Patent, including Defendant's FIDO-Ready Software and FIDO-Ready System. Defendant is thus liable for direct infringement of the '689 Patent pursuant to 35 U.S.C. § 271(a).

62.   Defendant jointly infringes claims 1-2 and 4-8 of the '689 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party because the acts of the third party can be legally attributed to Defendant. In such case, Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

63.   Specifically, Defendant provides third parties, including customers and/or end-users, with the FIDO-Ready Software. Through its design and implementation of the FIDO-Ready Software and/or FIDO-Ready System, among other things, Defendant conditions the ability of its customers and end-users to access confidential information using the enhanced security provided by the biometric authentication functionality on the performance of one or more steps of the

patented methods by the customers or end-users. Defendant directs and controls its customers and end-users to use the biometric authentication functionality in an infringing manner by providing user instructions and software-implemented prompts for setting-up, activating, and engaging the infringing biometric authentication functionality provided by the FIDO-Ready Software and/or FIDO-Ready System. When Defendant's FIDO-Ready Software and/or FIDO-Ready System is engaged to use FIDO functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs.   Defendant dictates when and how infringement occurs by virtue of providing code in the FIDO-Ready Software and/or FIDO-Ready System that dictates when and how the performance of the infringing functionality occurs.

64.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing claims 1-2 and 4-8 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 third parties, including Defendant's customers and end-users, to use FIDO-Ready Software and/or the FIDO-Ready System in a manner that Defendant knows or should know infringes one or more claims of the '689 Patent. Defendant instructs its customers and end-users to make and use the patented inventions of the '689 Patent by operating Defendant's products in accordance with Defendant's specifications. Defendant specifically intends its customers and end-users to infringe by implementing its FIDO-Ready Software and/or the FIDO-Ready System in accordance with the FIDO Security Standard and establishing an authentication framework and architecture that utilizes a unique user input and corresponding secret to authenticate a user.   Direct infringement is the result of activities performed by third parties in relation to Defendant's FIDO-Ready Software and/or the FIDO-

Ready System, including without limitation by third parties enabled and encouraged by Defendant to use the FIDO-Ready Software and/or the FIDO-Ready System in its normal, customary way to infringe the '689 Patent.

65.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing claims 1-2 and 4-8 of the '689 Patent, including contributing to the infringement of the '689 Patent under 35 U.S.C. § 271(c) and/or 271(f).

66.   Defendant's FIDO-Ready Software and FIDO-Ready System use the functionality in the FIDO Security Standard. Defendant knows that the FIDO-Ready Software and/or FIDO-Ready System (i) constitute a material part of the inventions claimed in the '689 Patent; (ii) are especially made or adapted to infringe the '689 Patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in systems that use the functionality of the FIDO Security Standard.

67.   As a result of Defendant's infringement of claims 1-2 and 4-8 of the '689 Patent, PACid has suffered and continues to suffer 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.

<div align="center">

COUNT FOUR
INFRINGEMENT OF U.S. PATENT NO. 10,171,433

</div>

68.   PACid incorporates by reference its allegations in Paragraphs 1-67 as if fully restated in this paragraph.

69.   PACid is the assignee and owner of all right, title and interest to the '433 Patent. PACid has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

70.   On information and belief, Defendant, without authorization or license from PACid, has been and is presently directly infringing, individually and/or jointly with others, at least claim 1 of the '433 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 products that infringe at least claim 1 of the '433 Patent, including Defendant's FIDO-Ready Software and FIDO-Ready System. Defendant is thus liable for direct infringement of the '433 Patent pursuant to 35 U.S.C. § 271(a).

71.   Defendant jointly infringes the '433 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party because the acts of the third party can be legally attributed to Defendant. In such case, Defendant conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.

72.   Specifically, Defendant provides third parties, including customers and/or end-users, with the FIDO-Ready Software. Through its design and implementation of the FIDO-Ready Software and/or FIDO-Ready System, among other things, Defendant conditions the ability of its customers and end-users to access confidential information using the enhanced security provided by the biometric authentication functionality on the performance of one or more steps of the patented methods by the customers or end-users. Defendant directs and controls its customers and end-users to use the biometric authentication functionality in an infringing manner by providing user instructions and software-implemented prompts for setting-up, activating, and engaging the infringing biometric authentication functionality provided by Defendant's FIDO-Ready Software and/or FIDO-Ready System.   When Defendant's FIDO-Ready Software and/or FIDO-Ready System are engaged to use FIDO functionality in the manner designed and established by

Defendant, the performance of the infringing functionality occurs. Defendant dictates when and how infringement occurs by virtue of providing code in the FIDO-Ready Software and/or FIDO-Ready System that dictates when and how the performance of the infringing functionality occurs.

73.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 1 of the '433 Patent, including actively inducing infringement of the '433 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing third parties, including Defendant's customers and end-users, to use FIDO-Ready Software and/or the FIDO-Ready System in a manner that Defendant knows or should know infringes one or more claims of the '433 Patent. Defendant instructs its customers and end-users to make and use the patented inventions of the '433 Patent by operating Defendant's products in accordance with Defendant's specifications. Defendant specifically intends its customers and end-users to infringe by implementing its FIDO-Ready Software and/or the FIDO-Ready System in accordance with the FIDO Security Standard and establishing an authentication framework and architecture that utilizes a unique user input and corresponding secret to authenticate a user. Direct infringement is the result of activities performed by third parties in relation to Defendant's FIDO-Ready Software and/or the FIDO-Ready System, including without limitation by third parties enabled and encouraged by Defendant to use the FIDO-Ready Software and/or the FIDO-Ready System in its normal, customary way to infringe the '433 Patent.

74.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 1 of the '433 Patent, including contributing to the infringement of the '433

Patent under 35 U.S.C. § 271(c) and/or 271(f).

75.   Defendant's FIDO-Ready Software and FIDO-Ready System use the functionality in the FIDO Security Standard. Defendant knows that its FIDO-Ready Software and/or FIDO-Ready System (i) constitute a material part of the inventions claimed in the '433 Patent; (ii) are especially made or adapted to infringe the '433 Patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in systems that use the functionality of the FIDO Security Standard.

76.   As a result of Defendant's infringement of the '433 Patent, PACid has suffered and continues to suffer 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.

<div align="center">

COUNT FIVE
INFRINGEMENT OF U.S. PATENT NO. 10,484,344

</div>

77.   PACid incorporates by reference its allegations in Paragraphs 1-76 as if fully restated in this paragraph.

78.   PACid is the assignee and owner of all right, title and interest to the '344 Patent. PACid has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

79.   On information and belief, Defendant, without authorization or license from PACid, has been and is presently directly infringing, individually and/or jointly with others, at least claim 1 of the '344 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 products that infringe at least claim 1 of the '344 Patent, including Defendant's FIDO-Ready Software and FIDO-Ready System. Defendant is thus liable for direct infringement of the '344 Patent pursuant to 35 U.S.C.

§ 271(a).

80.   Defendant jointly infringes the '344 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party because the acts of the third party can be legally attributed to Defendant. In such case, Defendant places the patented invention into service, controls the system as a whole and obtains benefit from it.

81.   Specifically, Defendant places the patented invention into service at least by providing third parties, including customers and/or end-users, with the FIDO-Ready Software. Through its design and implementation of the FIDO-Ready Software and/or FIDO-Ready System, among other things, Defendant controls the ability of its customers and end-users to access confidential information using the enhanced security provided by the biometric authentication functionality of the FIDO-Ready Software and/or servers. Defendant directs and controls its customers and end-users to use the biometric authentication functionality in an infringing manner by providing user instructions and software-implemented prompts for setting-up, activating, and engaging the infringing biometric authentication functionality provided by the FIDO-Ready Software and/or FIDO-Ready System. When Defendant's FIDO-Ready Software and/or FIDO-Ready System are engaged to use FIDO functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs in the system. Defendant dictates when and how infringement occurs by virtue of providing code in the FIDO-Ready Software and/or FIDO-Ready System that dictates when and how the performance of the infringing functionality occurs, thereby controlling the system as whole. Defendant benefits from secure and seamless online and mobile transactions as a consequence of Defendant's implementation of the FIDO-Ready Software and/or FIDO-Ready System. Therefore, through the functionality of the

infringing products as designed and established by Defendant, Defendant places the infringing system into service, controls the system as a whole and obtains benefit from it.

82.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 1 of the '344 Patent, including actively inducing infringement of the '344 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing third parties, including Defendant's customers and end-users, to use FIDO-Ready Software and/or the FIDO-Ready System in a manner that Defendant knows or should know infringes one or more claims of the '344 Patent. Defendant instructs its customers and end-users to make and use the patented inventions of the '344 Patent by operating Defendant's products in accordance with Defendant's specifications. Defendant specifically intends its customers and end-users to infringe by implementing its FIDO-Ready Software and/or the FIDO-Ready System in accordance with the FIDO Security Standard and establishing an authentication framework and architecture that utilizes a unique user input and corresponding secret to authenticate a user.   Direct infringement is the result of activities performed by third parties in relation to Defendant's FIDO-Ready Software and/or the FIDO-Ready System, including without limitation by third parties enabled and encouraged by Defendant to download, activate, and put into use the FIDO-Ready Software and/or the FIDO-Ready System in its normal, customary way to infringe the '344 Patent.

83.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 1 of the '344 Patent, including contributing to the infringement of the '344 Patent under 35 U.S.C. § 271(c) and/or 271(f).

84.   Defendant's FIDO-Ready Software and FIDO-Ready System use the functionality in the FIDO Security Standard. Defendant knows that the FIDO-Ready Software and/or FIDO-Ready System (i) constitute a material part of the inventions claimed in the '344 Patent; (ii) are especially made or adapted to infringe the '344 Patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in systems that use the functionality of the FIDO Security Standard.

85.   As a result of Defendant's infringement of the '344 Patent, PACid has suffered and continues to suffer 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 SIX
INFRINGEMENT OF U.S. PATENT NO. 11,070,530

86.   PACid incorporates by reference its allegations in Paragraphs 1-85 as if fully restated in this paragraph.

87.   PACid is the assignee and owner of all right, title and interest to the '530 Patent. PACid has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

88.   On information and belief, Defendant, without authorization or license from PACid, has been and is presently directly infringing, individually and/or jointly with others, at least claim 1 of the '530 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 products that infringe at least claim 1 of the '530 Patent, including Defendant's FIDO-Ready Software and FIDO-Ready System. Defendant is thus liable for direct infringement of the '530 Patent pursuant to 35 U.S.C. § 271(a).

89.   Defendant jointly infringes the '530 Patent to the extent that the acts necessary to give rise to liability for direct infringement are shared between Defendant and a third party because the acts of the third party can be legally attributed to Defendant. In such case, Defendant places the patented invention into service, controls the system as a whole and obtains benefit from it.

90.   Specifically, Defendant places the patented invention into service at least by providing third parties, including customers and/or end-users, with the FIDO-Ready Software. Through its design and implementation of the FIDO-Ready Software and/or FIDO-Ready System, among other things, Defendant controls the ability of its customers and end-users to access confidential information using the enhanced security provided by the biometric authentication functionality of the FIDO-Ready Software. Defendant directs and controls its customers and end-users to use the biometric authentication functionality in an infringing manner by providing user instructions and software-implemented prompts for setting-up, activating, and engaging the infringing biometric authentication functionality provided by the FIDO-Ready Software and/or FIDO-Ready System. When Defendant's FIDO-Ready Software and/or FIDO-Ready System is engaged to use FIDO functionality in the manner designed and established by Defendant, the performance of the infringing functionality occurs in the system. Defendant dictates when and how infringement occurs by virtue of providing code in the FIDO-Ready Software and/or FIDO-Ready System that dictates when and how the performance of the infringing functionality occurs, thereby controlling the system as a whole. Defendant benefits from secure and seamless online and mobile transactions as a consequence of Defendant's implementation of the FIDO-Ready Software and/or FIDO-Ready System. Therefore, through the functionality of the infringing products as designed and established by Defendant, Defendant places the infringing system into service, controls the system as a whole and obtains benefit from it.

91.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 1 of the '530 Patent, including actively inducing infringement of the '530 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing third parties, including Defendant's customers and end-users, to use FIDO-Ready Software and/or the FIDO-Ready System in a manner that Defendant knows or should know infringes one or more claims of the '530 Patent. Defendant instructs its customers and end-users to make and use the patented inventions of the '530 Patent by operating Defendant's products in accordance with Defendant's specifications. Defendant specifically intends its customers and end-users to infringe by implementing its FIDO-Ready Software and/or the FIDO-Ready System in accordance with the FIDO Security Standard and establishing an authentication framework and architecture that utilizes a unique user input and corresponding secret to authenticate a user. Direct infringement is the result of activities performed by third parties in relation to Defendant's FIDO-Ready Software and/or the FIDO-Ready System, including without limitation by third parties enabled and encouraged by Defendant to download, activate, and put into use the FIDO-Ready Software and/or the FIDO-Ready System in its normal, customary way to infringe the '530 Patent.

92.   On information and belief, at least since the filing of the Complaint in this action, Defendant, without authorization or license from PACid, has been and is presently indirectly infringing at least claim 1 of the '530 Patent, including contributing to the infringement of the '530 Patent under 35 U.S.C. § 271(c) and/or 271(f).

93.   Defendant's FIDO-Ready Software and FIDO-Ready System use the functionality in the FIDO Security Standard. Defendant knows that the FIDO-Ready Software and/or FIDO-

Ready System (i) constitute a material part of the inventions claimed in the '530 Patent; (ii) are especially made or adapted to infringe the '530 Patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in systems that use the functionality of the FIDO Security Standard.

94.   As a result of Defendant's infringement of the '530 Patent, PACid has suffered and continues to suffer 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.

VII.   WILLFUL INFRINGEMENT

95.   PACid incorporates by reference its allegations in Paragraphs 1-94 as if fully restated in this paragraph.

96.   On information and belief, Plaintiff alleges that Defendant has been willfully blind to the existence of the Patents and its infringement of the Patents. In the alternative, Plaintiff alleges that Defendant had knowledge of its infringement of the Patents since the filing and service of PACid's Complaint.

97.   Despite being notified of its infringement of the Patents, Defendant nonetheless continued to make, use, sell, and/or import infringing methods and products, to induce others to engage in such conduct, and/or to contribute to others engaging in such conduct despite knowing that such actions constituted infringement of valid patents.

98.   Accordingly, Defendant acted egregiously and/or knowingly or intentionally when it infringed the Patents.

99.   Accordingly, Plaintiff seeks enhanced damages pursuant to 35 U.S.C. § 284.

VIII.   JURY DEMAND

100.   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.

IX.   PRAYER FOR RELIEF

WHEREFORE, Plaintiff PACid respectfully requests that the Court:

A.   Enter judgment that Defendant infringes one or more claims of the Patents literally and/or under the doctrine of equivalents;

B.   Award Plaintiff PACid past and future damages together with prejudgment and post-judgment interest to compensate for the infringement by Defendant of the Patents in accordance with 35 U.S.C. §284, and increase such award by up to three times the amount found or assessed in accordance with 35 U.S.C. §284;

C.   Award Plaintiff PACid its costs, disbursements, attorneys' fees, and such further and additional relief as is deemed appropriate by this Court.

DATED: March 12, 2024   Respectfully submitted,

/s/   Christopher V. Goodpastor
Christopher V. Goodpastor
Texas State Bar No. 00791991
cgoodpastor@dinovoprice.com
Andrew G. DiNovo
Texas State Bar No. 00790594
adinovo@dinovoprice.com
Gregory S. Donahue
Texas State Bar No. 24012539
gdonahue@dinovoprice.com
DINOVO PRICE LLP
7000 N. MoPac Expressway, Suite 350
Austin, Texas 78731
Telephone: (512) 539-2626
Telecopier: (512) 539-2627

Counsel for Plaintiff
PACid Technologies, LLC