UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner

v.

CARDWARE INC.,
Patent Owner

Case No. PGR2023-00013
Patent No. 11,328,286

CARDWARE'S PATENT OWNER SUR-REPLY TO PETITIONER'S CORRECTED REPLY

PATENT OWNER'S EXHIBIT LIST

No.	Exhibit Description
2001	Docket Control Order for *CardWare Inc. v. Samsung Electronics Co., Ltd.*, Case No. 22-cv-00141-JRG (E.D. Tex.)
2002	Median Time-to-Trial for Patent Cases before Judge Gilstrap for cases filed on or after January 1, 2019 (Source: DocketNavigator; as of May 1, 2023)
2003	Order Denying Motion to Stay in *CardWare Inc. v. Samsung Electronics Co., Ltd.*, Case No. 22-cv-00141-JRG (E.D. Tex.)
2004	United States District Courts National Judicial Caseload Profile as of December 31, 2022, *available at* https://www.uscourts.gov/sites/default/files/data_tables/fcms_na_distprofile1231.2022.pdf (retrieved May 2, 2023)
2005	Letter from D. Valente to M. Berkowitz, dated April 18, 2023
2006	Defendants' Preliminary Proposed Claim Constructions and Preliminary Identification of Extrinsic Evidence in *CardWare Inc. v. Samsung Electronics Co., Ltd.*, Case No. 22-cv-00141-JRG (E.D. Tex.)
2007	Declaration of William C. Easttom II Ph.D., D.Sc., May 15, 2023
2008	Excerpts From the File History of U.S. Patent Application No. 14/511,994
2009	Excerpts From the File History of U.S. Patent Application No. 15/054,020
2010	Excerpts From the File History of U.S. Patent Application No. 15/056,827
2011	Defendants' Invalidity Contentions from CardWare Inc. v. Samsung Electronics Co., Ltd., Case No. 22-cv-00141-JRG (E.D. Tex.)
2012	U.S. Patent No. 9,949,047
2013	U.S. Patent No. 10,893,556
2014	U.S. Patent No. 11,457,381
2015	*Introduction to Touch Sensors | Working, Capacitive, and Resistive*, ElectronicsHub (Apr. 20, 2019), https://www.electronicshub.org/ touch-sensors/.
2016	*How Does a Touch Sensor Work?*, Teach Engineering, https: //www.teachengineering.org/lessons/view/umo_sensorswork_lesson03 (last updated June 14, 2021).
2017	Touch Screen Technology (Spring 2015) *available at* https://inst.eecs.berkeley.edu//~ee16a/sp15/Lecture/Lecture_9.pdf.

No.	Exhibit Description
2018	Ian Maxwell, An Overview of Optical-Touch Technologies, 23 INFORMATION DISPLAY 26 (Dec. 2007) *available at* https://walkermobile.com/December_2007_ID_Overview_of_Optical_Touch_Technologies.pdf.
2019	*Touchscreen Issues on a Galaxy Phone*, Samsung, https://www.samsung.com/us/support/troubleshooting/TSG01213974/ (last visited May 15, 2023).
2020	Excerpt From Andrew Butterfield and John Szymanski, *Dictionary of Electronics and Electrical Engineering (Oxford Quick Reference)* (Kindle Locations 22202-22205). OUP Oxford.
2021	Omosola Odetunde, Nadja Rhodes, Levirt Griffin III, *History – The Difference between RFID and NFC*, Stanford (2011), https://cs.stanford.edu/people/eroberts/cs181/projects/2010-11/NFCChips/difference.html.
2022	Tan Nguyen, *Near Field Communication (NFC)*, Carnegie Mellon University (Spring 2019), *available at* https://www.andrew.cmu.edu/course/14-760-s20/applications/ln/14760-l19.pdf.
2023	*Facility Definition & Meaning*, Merriam-Webster, https://www.merriam-webster.com/dictionary/facility (last retrieved May 15, 2023).
2024	*Definition of **facility noun** from the Oxford Advanced Learner's Dictionary*, Oxford Learner's Dictionaries, https://www.oxfordlearnersdictionaries.com/definition/english/facility (last retrieved May 15, 2023).
2025	*Biometric Sensor Chips Information*, GlobalSpec, https://www.globalspec.com/learnmore/semiconductors/sensor_ic/biometric_sensors (last retrieved May 15, 2023).
2026	Xiongwu Xia & Lawrence O'Gorman, *Innovations in fingerprint capture devices*, 36 Pattern Recognition 361 (2002).
2027	Excerpt from Anil Jain et al., *Introduction to Biometrics* (Kindle Edition), (Springer New York, NY 2011).
2028	Nicholas Wettels et al., *Biomimetic Tactile Sensor Array*, 22 ADVANCED ROBOTICS 829 (2008).
2029	Jun-Chieh Liu et al., *A CMOS Micromachined Capacitative Sensor Array for Fingerprint Detection*, 12 IEEE SENSORS J. 1004 (2012).

No.	Exhibit Description
2030	G. Olavarrieta Fritsche et al., *A simple fingerprint sensor based on ridge conductivity*, in *Proceedings of the Third International Workshop on Design of Mixed-Mode Integrated Circuits and Applications (Cat. No. 99EX303* (July 28, 1999).
2031	Mohammad M. R. Chowdhury and Josef Noll, *Service Interaction through Role based Identity*, in *Proceedings of Wireless World Research Forum Meeting (Vol. 17)* (2006).
2032	Stuart Frisch, *Privacy Impact Assessment for the Personal Identity Verification (PIV) Card System*, U.S. Department of Justice, Justice Management Division (Mar. 24, 2011) *available at* https://www.justice.gov/d9/opcl/docs/pia-pivcard-hspd12.pdf.
2033	U.S. Patent No. 10,628,820
2034	Joint Claim Construction Statement in *CardWare Inc. v. Samsung Electronics Co., Ltd.*, Case No. 22-cv-00141-JRG (E.D. Tex.)
2035	Petitioner's Email to the Board dated June 13, 2023, attaching replacement Petitioner Replies, *with* attachments

I. The '286 Patent Is Entitled to Its Provisional Filing Date[1]

Claim 15: Petitioner argues that Patent Owner took a position concerning provisional support for the term "card ***issuing*** authority" that is inconsistent with a position it took in IPR2023-00314 ("the -314 IPR"). Paper 12 (Cor. Rpl.), 1. Not so.

In the -314 IPR, Petitioner asserted that Smith disclosed the limitation of claim 15 of U.S. Patent No. 10,628,820, requiring "wherein card issuer provided payment card information is wirelessly downloaded into the computing device." Specifically, Petitioner asserted that this limitation was met by the "mobile could account data" of Smith. EX1107, 43-44. Patent Owner explained that this is wrong, by Smith's own terms. *Id.* Smith discloses the following Figure (EX1004):

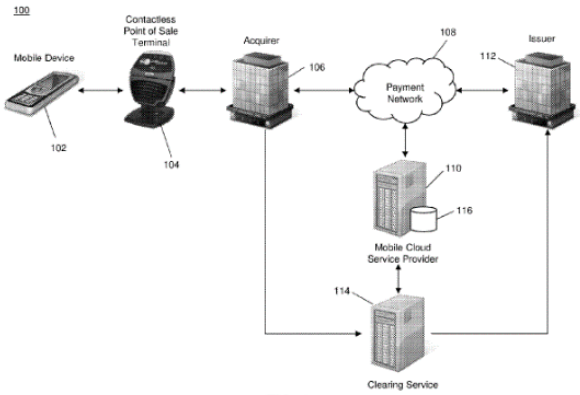

FIG. 1

As the Figure makes clear, Smith distinguishes between an "issuer" and a "service provider." The -314 POPR explained that "Smith never once states that the 'mobile cloud account data' is provided by a card issuer as required by claim 15. To the contrary, Smith is consistent that the mobile cloud account data is generated and provided to a mobile device by a mobile cloud service provider, not the card issuer." EX1107, 43.

This context should end any question about whether Patent Owner was

[1] This Sur-Reply responds only to Petitioner's revised Reply. *See* EX2035, 1.

inconsistent; Patent Owner said nothing about a "card processing facility" whatsoever, and was simply pointing out what was obvious from Smith: the "service provider" in that reference is specifically differentiated from the "issuer."

Petitioner seems to recognize this problem and tries to triangulate some separate statements that Dr. Easttom made in this PGR about the word "facility." But, these statements have nothing to do with anything in Smith, the "service provider" disclosed therein, or any issue in the -314 IPR. In the paragraphs that Petitioner cites (¶¶41-44), Dr. Easttom addressed '286 patent claim 6, and not claim 15. In response to Petitioner's expert, Dr. Easttom simply explained that the dynamic part of a number in the provisional can be based on the "facility" information, such as the "facility" reading the card. He said absolutely nothing about a "card processing facility," and drew no comparisons between Smith, its "service provider" and/or whether a "service provider" constitutes a "card processing facility," as in the provisional. There is simply no inconsistency, or anything otherwise to suggest that '286 patent claim 15 is not supported by the provisional.

Claim 3: Petitioner argues there is an inconsistency because "the provisional repeatedly and consistently treats the 'display' separately from the TSA [touch sensor array]" and that the touch-sensor functions are "not associated with any disclosed functions of the 'display.'" Cor. Rpl., 1-2. Patent Owner and Dr. Easttom expressly noted and considered that in the analysis. POPR, 4-6 (explaining

interaction between touch sensor array and display "coupled to a microprocessor and memory"); EX2007, ¶¶13-22; EX1012, 12-13 ([0013], [0016]), 16 (prov. cl. 4), 19 [Figure]. Dr. Easttom explained, for example, a POSA's understanding of a touch screen and touch sensor, including that a POSA would have understood that they were "used interchangeably" and that "a touch screen is a specific implementation of a touch sensor." EX2007, ¶¶15-21.

Petitioner's argument that the functions of the touch sensor "are not associated with any disclosed functions of the 'display'" is incorrect and misses the point. First, as explained above and in the POPR, it rests on the faulty premise of a POSA's understanding of a touch sensor itself. Second, provisional claim 4 expressly discloses that the touch sensor "allow[s] user input of information," and to "operate … with a gesture across said sensor," which reflects a typical operation across a touch screen. Further, Paragraph 13 discloses that various inputs (such as touch sensors) can be used for operations including inputting specific user information (passwords, etc.), and Paragraph 16 describes the "multiple uses" of the display including passwords, etc. EX1012, 12-13 ([0013], [0016]), 16 (prov. cl. 4). Petitioner suggests that a disclosure of "keys" and "input buttons," indicates that the functions are performed separately from a touch sensor, but ignores both that the provisional describes that the touch sensors are "press[ed]" just like such a key or button and provisional claim 4's express disclosure. *Id.*; *see also* EX2007, ¶¶13-22.

Dated: June 23, 2023

Respectfully submitted,

REICHMAN JORGENSEN LEHMAN
& FELDBERG LLP

/s/ Patrick Colsher

Patrick Colsher (Reg. No. 74,955)

CERTIFICATE OF SERVICE

I hereby certify that the foregoing was served on June 23, 2023, via electronic mail upon counsel of record for Petitioner at the following email addresses:

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