

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner,

v.

UNIVERSAL SECURE REGISTRY LLC,

Patent Owner.

Case IPR2018-00813

U.S. Patent No. 9,100,826

DECLARATION OF ARI JUELS

Apple 1120

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I, Ari Juels, declare as follows:

1. I have been retained by Apple Inc. (“Petitioner”) in connection with the above-captioned *inter partes* review proceeding.

2. I am a named inventor of the International Patent Application Publication No. WO 2004/051585 (the “’585 reference” which is also referred to elsewhere in this proceeding as the “Jakobsson” reference). I submit this Declaration to respond to the statements and opinions provided by Markus Jakobsson, my co-inventor on the ’585 reference and Patent Owner’s expert witness. In my opinion, Dr. Jakobsson grossly mischaracterizes the ’585 reference and has interpreted its teachings in a way that is inconsistent with the purpose, spirit, and words of the ’585 reference. In addition, his testimony includes numerous misleading and/or technically incorrect statements that I rebut in the following paragraphs.

3. I am being compensated at my normal consulting rate for my work. My compensation is not dependent on the outcome of this proceeding or the related litigation, and does not affect the substance of my statements in this Declaration. I have no financial interest in Petitioner or the ’826 patent.

I. QUALIFICATIONS

4. My qualifications are detailed in my curriculum vitae, which is attached hereto as Appendix A. It includes my academic background, employment

history, professional experience, and a list of patents and publications for which I am an inventor and/or author.

5. I am a full professor at the Jacobs Technion-Cornell Institute at Cornell Tech, with an associated faculty appointment at Cornell University. I have been on the faculty at Cornell Tech and regularly taught master's and Ph.D.-level courses since 2014. I am also a Co-Director of the Initiative for CryptoCurrencies and Contracts (IC3). I served previously as Chief Scientist at RSA, where I worked for over sixteen years. I received my Ph.D. in computer science from the University of California at Berkeley in 1996.

6. I hold over 120 issued patents and have published over 100 scholarly works in peer-reviewed venues. According to Google Scholar, my work has received over 30,000 citations; four of my papers are among the top hundred most cited in security. My notable awards over the past ten years include a 2nd-place prize at the EMC Innovation Showcase in 2011, NYU-Poly Applied Security paper awards (3rd and 2nd) in 2012 and 2013, my winning the Cisco Internet of Things Security Grand Challenge in 2014, a Google Faculty Research Award in 2015, an IBM Faculty Research Award in 2016, Distinguished Student Paper Awards in 2015 and 2016 from IEEE S&P (a top-four international security conference), a faculty teaching award at Cornell Tech in 2018, and a test-of-time award in 2019

from NDSS (a top-four international security conference, where I also gave the keynote talk in 2018).

7. In preparing this Declaration, I have reviewed the following materials:

- Petition (Paper 3) and the exhibits cited therein
- U.S. Patent No. 9,100,826 (Ex-1101)
- Patent Owner's Response (Paper 18) ("POR") and the exhibits cited therein
- WO 2004/051585 (the "'585 reference") (Ex-1104)
- Declaration of Markus Jakobsson in Support of Patent Owner Response (Ex-2101) and the exhibits cited therein
- Transcript of March 20, 2019 deposition of Markus Jakobsson (Ex-1117)

II. LEGAL PRINCIPLES

8. I am not an attorney. For purposes of this Declaration, I have been informed about certain aspects of the law that are relevant to my analysis and opinions.

A. Claim Construction

9. I have been informed that claim construction is a matter of law and that the final claim construction will ultimately be determined by the Board.

10. I have been informed that the claim terms in an IPR review should be given their broadest reasonable construction in light of the specification as commonly understood by a person of ordinary skill in the art ("POSITA"). I have applied this standard in my analysis. I have been informed that the broadest

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