

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC.,

VISA INC., and VISA U.S.A. INC.,<sup>1</sup>

Petitioners,

v.

UNIVERSAL SECURE REGISTRY, LLC,

Patent Owner.

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Case IPR2018-00813

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

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**PETITIONER APPLE INC.'S SUR-REPLY TO PATENT OWNER'S  
REPLY TO THE OPPOSITION TO THE CONDITIONAL MOTION TO  
AMEND**

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<sup>1</sup> Visa Inc. and Visa U.S.A. Inc., which filed a petition in IPR2019-00176, have been joined as a party to this proceeding.

Petitioner’s Sur-Reply To PO’s Reply To The Opposition To The CMTA

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## I. INTRODUCTION

In opposing the CMTA, Petitioner demonstrated that the plain text of the '860 application does not support substitute claim 56, that the incorporation of digital signatures in substitute claims 36, 42, and 45 was an obvious addition to a combined authentication code, and that encryption with a key-encryption-key was a well-known way to encrypt data. Patent Owner's ("PO") Reply does not dispute these points. Instead, PO resorts to mischaracterizing the teachings of the references, the testimony of Petitioner's experts, Petitioner's methodical mapping of the "fields" required by claims 36 and 45, and the scope of claim 45.

## II. ARGUMENT

### A. Substitute Claim 56 Lacks Written Description Support Because The '860 Application Does Not Disclose Public/Private Key Encryption And Decryption.

Substitute claim 56 lacks written description support for the claimed key-encryption-key ("KEK") architecture because the '860 application discloses at most an inoperable form of public-key encryption, which is unlike the use of symmetric keys in KEK encryption. CMTA Opp. at 3-4. PO and its expert now concede that – *as written* – the portions of the '860 application on which PO relies fail to support claim 56's KEK architecture. CMTA Reply at 2-3. Confronted with this admitted flaw, PO and its expert attempt the new argument that the Board should overlook the application's lack of disclosure because it reflects an "obvious error" and a POSITA would understand what was intended and would "also readily

Petitioner's Sur-Reply To PO's Reply To The Opposition To The CMTA recognize two corrections." CMTA Reply at 2-4; Ex-1117, Jakobsson Dep., 51:5-54:16. PO is wrong about this on all accounts.

First, a POSITA would not conclude that the application should be understood to mean what PO and Dr. Jakobsson belatedly claim. Ex-1119, Shoup-Decl., ¶¶27-28. PO now argues that a POSITA would recognize that pages 49-50 of the '860 application should be corrected in two ways: first, decrypting with a user's private, rather than public key, and second, changing both the encryption and decryption to be performed with a symmetric key. CMTA Reply at 3-4. But even Dr. Jakobsson, when deposed, did not suggest that a POSITA would identify both corrections. He identified only the first (Ex-1017, Jakobsson Dep., 51-54), which is the one that does not support the claimed KEK architecture. CMTA Opp. at 4. And PO does not explain why a POSITA would understand a passage that discloses a single encryption technique to be corrected to one that discloses two alternative techniques, or why a disclosure limited to asymmetric public keys should be understood to disclose symmetric keys. Ex-1119, Shoup-Decl., ¶¶25-28.

Second, PO is incorrect that *In re Oda*, 443 F.2d 1200, 1205 (CCPA 1971), the sole case PO relies on, would allow the Board to find written description support where plain text of the '860 application provides none. Nothing in *Oda* suggests that the specification may be "corrected" where, as here, it would not be clear to a POSITA what the correction would be. And PO presents no evidence as

Petitioner's Sur-Reply To PO's Reply To The Opposition To The CMTA to why both asserted corrections are appropriate where the specification listed only one inoperable encryption technique. Furthermore, unlike in *Oda*, PO does not identify the source of the error, much less that it makes one correction clear. *See* 443 F.2d at 1206 (“[I]t follows that when the nature of this error is known it is also known how to correct it”). Accordingly, PO fails to overcome Petitioner's showing that claim 56 lacks support.

**B. Schutzer And The '585 Reference Render Obvious The Digital Signature In Substitute Claims 36, 42, And 45.**

PO's argument that Schutzer's digital signature is different from the claimed digital signature (CMTA Reply at 10-12) overlooks Dr. Shoup's detailed explanation of why it would have been obvious to include a digital signature that “securely authenticate a[n authentication device] user” to arrive at claims 36, 42, and 45. Ex-1119, Shoup-Decl., ¶¶45-50, 59; *see also* CMTA Opp. at 9-11. Dr. Shoup explained that a POSITA would have recognized that forming digital signatures, like those in Schutzer, could include generating a digital signature using a private key of the first device (*e.g.*, decrypting data with a user's private key like the first device's combination function in the '585 reference), and that the second device could verify the digital signature (*e.g.*, verifier reverses this process by encrypting the digital signature with a public key to authenticate the device that created the digital signature). Ex-1119, Shoup-Decl., ¶¶49-50.

PO offers no evidence to rebut Dr. Shoup, or to show that such a

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