

Chart B-1

## Invalidity Contentions: U.S. Patent No. 8,843,125

*Fintiv, Inc. v. Apple Inc.*, Case No. 1:19-CV-1238-ADA (W.D. Tex.)

### Filtering Based on Mobile Device Information

**CLAIM LIMITATIONS:** “receiving filtered contactless card applet for provisioning, wherein the contactless card applet is configured to receive mobile device information” (’125 patent claim 14), “a rule engine configured to filter a widget based on the mobile device information” (claim 15) and “an over-the-air (OTA) proxy configured to provision the contactless card applet, a widget corresponding to the contactless card applet, and a WMA, wherein said OTA proxy is configured to capture mobile device information comprising SE information; and the WMA is configured to transmit the mobile device information for registering the mobile wallet application” (claim 23 to the extent necessary).

**ASSERTED CLAIMS:** These limitations are present in the following asserted claims: ’125 patent claims 14, 18, and 23 to the extent necessary.

**DISCLOSURE/MOTIVATION TO COMBINE:** Under Fintiv’s interpretation of these claim limitations, filtering a contactless card applet, a widget corresponding widget, or other software was well-known to persons of ordinary skill in art at the time of the alleged invalidity of Patent. <sup>1</sup>

Fintiv does identify how the accused products perform filtering. The entirety of Fintiv’s Preliminary Infringement Contentions and the limitation of claim 18 are reproduced below. See Preliminary Infringement Contentions, Ex. A at 68-71.

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<sup>1</sup> To the extent that these Invalidity Contentions rely on or otherwise embody particular constructions of terms or phrases in the Asserted Claims as ordered by the Court in this action, Defendant is not proposing any such constructions as proper constructions of those terms or phrases and reserves all claim construction positions in this and other proceedings. Various positions put forth in this document are predicated on Plaintiff’s incorrect assertions of the claims as evidenced by its Preliminary Infringement Contentions, dated May 20, 2019 and proposed Amended Infringement Contentions, dated May 20, 2019 (the “Infringement Contentions” or “Preliminary Infringement Contentions”). Those positions are not intended to and do not necessarily reflect the true and proper scope of Plaintiff’s claims, and Defendant reserves the right to adopt claim construction positions that differ from or even conflict with those positions in this document.



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### Credit, debit, and prepaid card provisioning

When a user adds a credit, debit, or prepaid card (including store cards) to Apple Pay, Apple securely sends the card information, along with other information about user's account and device, to the card issuer or card issuer's authorized service provider. Using this information, the card issuer will determine whether to approve adding the card to Apple Pay.

Apple Pay uses three server-side calls to send and receive communication with the card issuer or network as part of the card provisioning process: *Required Fields*, *Check Card*, and *Link and Provision*. The card issuer or network uses these calls to verify, approve, and add cards to Apple Pay. These client-server sessions are encrypted using TLS v1.2.

Full card numbers aren't stored on the device or on Apple servers. Instead, a unique Device Account Number is created, encrypted, and then stored in the Secure Element. This unique Device Account Number is encrypted in such a way that Apple can't access it. The Device Account Number is unique and different from usual credit or debit card numbers; the card issuer can prevent its use on a magnetic stripe card, over the phone, or on websites. The Device Account Number in the Secure Element is isolated from iOS and watchOS, is never stored on Apple servers, and is never backed up to iCloud.

Cards for use with Apple Watch are provisioned for Apple Pay using the Apple Watch app on iPhone. Provisioning a card for Apple Watch requires that the watch be within Bluetooth communications range. Cards are specifically enrolled for use with Apple Watch and have their own Device Account Numbers, which are stored within the Secure Element on the Apple Watch.

iOS Security Guide, iOS 11.4, August 2018 at p. 41.

### Adding a credit or debit card manually to Apple Pay

To add a card manually, the name, card number, expiration date, and CVV are used to facilitate the provisioning process. From within Settings, the Wallet app, or the Apple Watch app, users can enter that information by typing, or using the camera on the device. When the camera captures the card information, Apple attempts to populate the name, card number, and expiration date. The photo is never saved to the device or stored in the photo library. After all the fields are filled in, the Check Card process verifies the fields other than the CVV. They are encrypted and sent to the Apple Pay Server.

If a terms and conditions ID is returned with the Check Card process, Apple downloads and displays the terms and conditions of the card to the user. If the user accepts the terms and conditions, Apple sends the ID of the terms that were accepted as well as the CVV to the Link and Provision process. Additionally, as part of the Link and Provision process, Apple shares information from the device with the card issuer or network like information about your iTunes and App Store account activity (for example, whether you have a long history of transactions within iTunes), information about your device (for example, phone number, name, and model of your device plus any companion iOS device necessary to set up Apple Pay), as well as your approximate location at the time you added your card (if you have Location Services enabled). Using this information, the card issuer will determine whether to approve adding the card to Apple Pay.

As the result of the Link and Provision process, two things occur:

- The device begins to download the Wallet pass file representing the credit or debit card.
- The device begins to bind the card to the Secure Element.

The pass file contains URLs to download card art, metadata about the card such as contact information, the related issuer's app, and supported features. It also contains the pass state, which includes information as to whether the personalizing of the Secure Element has completed, whether the card is currently suspended by the card issuer, or whether additional verification is required before the card can make payment to Apple Pay.

iOS Security Guide, iOS 12.1, November 2018 at p. 49.

The '125 patent explains that the “filtered list of downloadable applications” may be filtered based on a variety of information about the device, including other software stored on the device or even an entity associated with that software: “mobile device 100, without limitation, the mobile network provider of the mobile device 100 (e.g. ‘Sprint®’, ‘Verizon®’, ‘AT&T®’, etc.), the mobile device 100, associated with the contactless card applets stored (e.g. ‘Wachovia®’, ‘Bank of America®’, ‘Chase®’, etc.), mobile device 100 hardware specifications (e.g. ‘HTC®’, ‘Motorola®’, ‘Apple®’, etc.), and mobile device 100 hardware specifications (i.e. hardware, software, operating system) at 10:24-34; *see also id.* at 5:22-24 (“Rule engine 116 may filter widgets based on information related to the mobile device 100”) and not disclose that filtering applets, widgets, or other software was done in a way that was unconventional or based on critical information.”

To the extent Fintiv contends that the claimed “applets” and “widgets” are software applications, a person of ordinary skill in the art would be motivated to combine and/or apply teachings beyond only those found in mobile wallet prior art references. For as long as software configurations have existed in computers, software purveyors have offered users software applications that are

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respective devices. For example, vendors offered a Windows user the Windows-compatible version of a software application, a Linux-compatible version of the software, and a Mac user the Mac-compatible version of the same software. There is no novelty in this concept, regardless of whether it is performed by a human or on a server which filters based on “mobile device information.” The fact that software being filtered is a contactless card applet or widget does not make it any less obvious.

In much the same way that a computer such as a laptop, desktop, or smartphone would send information (e.g., OS version) to a server in order to receive an operating system update, service pack, or security patch corresponding to the existing software, a user could then choose to install, a mobile device would send “mobile device information” to a server to receive notification of updates or “widgets” which a user could then choose to install. This technique was well-known and obvious to POSITA prior to the Asserted Patent in view of similar approaches used for things like providing Windows service-pack and security updates.

A POSITA would have been motivated to implement this standard practice to advance the goal of ensuring that only the applications that work with the particular mobile device at issue are offered or provisioned to that device. *See, e.g.*, Aiguo et al., which appreciated that a first moblet software module 204 may be installed during manufacturing of the electronic device 210. A user of the moblet software module 204 may be requested 201 from the remote server 230. The request 201 may indicate a device type of the device 210. In response to the request 201, the remote server 230 may transmit 203 the first moblet software module 204 to the device 210. Furthermore, responsive to the request 201, the remote server 130 may transmit 203 a device dependent software, e.g., Microsoft Office, as described in O’Neill at 11:62-12:32 (“...the client device 104 establishes a communication link with the update device server 136 and transmits device information 113 including, type, model, and/or make of the device, as well as version of operational system software currently installed on the client device information and checks the server manifest or queries the update store 133 for the presence of the update package 110. The available versions of operational software on the server manifest or update store 133 to the onboard version of operational software on the client device 104, the update store 133 directs the transfer of the update package 110 to the client device 104....”). A POSITA would be motivated to apply filtering in this manner to improve the user experience, avoid the hassles and costs associated with installing incompatible software, eliminate service calls and requests from users about compatibility problems, and provide faster server-based filtering.

Accordingly, a POSITA at the time of the alleged invention would have found it obvious to use known software filtering techniques for provisioning “applets” and “widgets” on a mobile device. More specifically, it would have been obvious to modify or create systems or methods in which a server filters for software on the basis of information related to the client-side device to avoid installing software on a device with a contactless card applet and/or a corresponding widget which were first filtered by the server providing such information relating to the mobile device.

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To the extent Fintiv contends that any reference identified in Exhibit A does not disclose any portion of the above limitations disclosed by the references herein. Moreover, the exemplary pincites to the prior art identified in the table below also disclose missing portions would have been obvious to one of ordinary skill in the art. Further, a person of ordinary skill in the art would be able to combine each reference identified in Exhibit A with any one or more of the following references for at least the reasons stated in the document of Apple’s Initial Invalidity Contentions or as identified herein.

Reference	Disclosure
<p>U.S. Patent Publication No. 2010/0138518 A1 to Aiglstorfer (“Aiglstorfer”). Aiglstorfer was filed on November 18, 2009 and published on June 3, 2010.</p>	<p><i>See, e.g.:</i></p> <ul style="list-style-type: none"> <li>• Aiglstorfer at ¶ 12 (“It is appreciated that responsive to a user request, the electronic wallet 100 may request the remote server 130 to download the first moblet software module. The sent message may indicate the first moblet software module to the electronic wallet. Accordingly, the electronic wallet receives from the remote server 130 the first moblet software module via a wireless network. Moreover, the electronic wallet receives from the remote server 130 the second moblet software module via a wireless network. Accordingly, the electronic wallet executes the first moblet software module using the device dependent software module. According to one embodiment, the first and second moblet software modules are written using MOJAX commands.”).</li> <li>• Aiglstorfer at ¶ 31 (“It is appreciated that the first moblet software module 106 may be downloaded from the remote server 130 of the electronic device 110. Alternatively, the first moblet software module 106 may be downloaded from the remote server 130 and subsequently downloaded. The request 101 may indicate a device dependent software module 106 of the electronic device 110. In response to the request 101, the remote server 130 may transmit 103 the first moblet software module 106 to the electronic device 110. Furthermore, responsive to the request 101, the remote server 130 may transmit 103 the device dependent software, e.g., MOJAX environment, to the electronic wallet.”).</li> <li>• Aiglstorfer at Fig. 1:</li> </ul>

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