Chart B-6   **Invalidity Contentions: U.S. Patent No. 8,843,125**

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

Over-The-Air (OTA) Proxy / OTA Proxy

CLAIM LIMITATIONS: "an *over-the-air (OTA) proxy* configured to provision the contactless card applet, a widget corre
card applet, and the WMA," "wherein said *OTA proxy* is configured to capture mobile device information comprising S
said *OTA proxy* is configured to transmit the mobile device information for registering the mobile wallet application" ('
"receiving the contactless applet, the WMA, and the widget information through *OTA proxy*" (claim 16).

ASSERTED CLAIMS: These limitations are present in the following asserted claim: '125 patent claim 23 (and its deper

DISCLOSURE/MOTIVATION TO COMBINE: The Court construed the "OTA proxy" limitations as "software, in conjunc
that provisions contactless card applets, captures mobile device information (including SE information), transmits data (
specific information) to the TSM system, and receives APDU commands from the TSM and appropriately forwards ther
86). Even though the Court construed OTA proxy on Nov. 27, 2019, Fintiv's proposed Amended Initial Disclosure of A
Instrumentalities, and Ingringement Contentions ("Fintiv's Proposed Amended Infringement Contentions) served on De
Court's construction. As it relates to the OTA proxy limitation, Fintiv's Preliminary Infringement Contentions and its P
Infringement Contentions are identical. *Compare*, *e.g.*, pgs. 53-55 and 96-105 of Exhibit A to both documents. For bot
Fintiv's contentions state that the OTA proxy is "software and/or hardware that enables secure communication." *See*, *e.*
Contentions, Exhibit A at 53 and 96. Under Fintiv's interpretation of the OTA proxy claim limitations and the Court's c
that satisfy this requirement were well-known to POSITA at the time of the alleged inventions. [1]

As noted, OTA proxy appears in claims 23 and 16. Most of the district court's construction merely repeats other limitati
already requires that the OTA proxy is configured to "provision the contactless card applet," "capture mobile device info
information," and "transmit the mobile device information for registering the mobile wallet application." The analogs to
construction are "provisions contactless card applets," "captures mobile device information (including SE information),"
device and SE specific information) to the TSM system," respectively. Apple addressed how the prior art meets these re

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[1] To the extent that these Invalidity Contentions rely on or otherwise embody particular constructions of terms or phrases in the Asserted Claims
ordered by the Court in this action, Defendant is not proposing any such constructions as proper constructions of those terms or phrases and rese
claim construction positions in this and other proceedings. Various positions put forth in this document are predicated on Plaintiff's incorrect an
claims as evidenced by its Preliminary Infringement Contentions, dated May 20, 2019 and proposed Amended Infringement Conventions, dated
the "Infringement Contentions" or "Preliminary Infringement Contentions"). Those positions are not intended to and do not necessarily reflect I
true and proper scope of Plaintiff's claims, and Defendant reserves the right to adopt claim construction positions that differ from or even confli
in this document.

requirement that the OTA proxy be software, in its Preliminary Invalidity Contentions (as well as in the A-charts and co
Invalidity Contentions) for claim 23. Unlike claim 23, claim 16 does not recite that the OTA proxy performs the aforem
same reasons, even if claim 16 were interpreted to require everything that claim 23 requires, the prior art renders claim 1
reasons. The only new requirement imposed by the district court's construction is that the OTA proxy "receives APDU
and appropriately forwards them."

The '125 patent explains that APDU is an acronym for "Application Protocol Data Unit." '125 patent at 8:2-3. The Ass
any specific APDU commands nor identify any new APDU commands. To the contrary, such commands were well-kno
of the alleged invention and it would have been obvious to modify prior art system or methods to use existing APDU co
including to securely communicate, between a TSM and secure element. APDU commands were an industry standard s
ISO7816-4 Standard, 1st Edition (Sept. 1, 1995); ISO14443-4 Standard, pg. vi (applying ISO7816-4 to contactless cards
the communication protocol and commands for communicating with an IC card (*e.g.*, a smartcard) and the secure eleme
Introduction. For example, ISO7816-4 specifies how many bits of data comprise header and payload information of AP
Thus, even if claims 16 and 23 required the OTA proxy to "receive[] APDU commands from the TSM and appropriately
secure element) as required by the district court's construction, this would have been obvious. For instance, Apple alrea
(Chart A-3), Buhot (Charts A-1 and A-2), and Wang (Chart A-7) teach transmitting information from a TSM to the secu
via an OTA proxy. *See also*, *e.g.*, IPR2020-00019, Petition at 47-50, 53-55. Aiglstorfer's mobile device includes a "sec
a "subscriber identify module (SIM) card" which wirelessly receives, via the mobile device's communication hardware
(TSA) 102," contactless "banking card information" from a TSM for provisioning on the device. Aiglstorfer at Fig. 1, ¶¶
Aiglstorfer does not explicitly state that the TSM transmits banking card information via "ADPU commands," as of the
was well-known in the art to use APDU commands for communicating with, and provisioning cards on, a secure elemen
evidenced by Buhot '437 which explains that "Application Protocol Data Unit (APDU commands)," defined by "ISO 14
transmitted to/from a secure element like a SIM card during contactless card use, or when interacting with the secure ele
database 316. Buhot '437, ¶¶[0017], [0100]- [0105]. The standards in Buhot '437 are themselves prior art to the '125 p
knowledge of a POSITA circa 2010. *See* ISO7816-4 Standards dated 1995 and 2005; ISO14443-4 Standard dated 2001
2000. The ISO7816-4 Standard expressly states that APDU commands are the format used for "information exchange n
outside world and the integrated circuit" in a removable security element like a SIM card. *See* ISO7816-4 at 5, 13. Thu
cards or other information from the TSM to a secure element (such as Aiglstorfer's SIM card), it would have been obvio
commands. *See*, *e.g.*, U.S. Pat. Pub. 2012/0095852 to Bauer et al., ¶¶[0025], [0036] (noting that "APDU commands" ar
when communicating with a mobile device's "secure element").

A POSITA would have been motivated to use APDU commands for receiving communications from the TSM and forw
element because APDU commands were an industry standard format for communicating with a secure element. APDU

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communicating a variety of different types of messages relating to a variety of different contactless card applets. This fl
to designers. It would also factilitate interoperability and flexibility which were known advantages of using industry sta
standard techniques can reduce development time and result in more robust communications. Indded, the ability for a T
secure element on a mobile device in the context of mobile payments was disclosed in references such as Bauer. Bauer,
"APDU commands" are sent from a "TSM server" when communicating with a mobile device's "secure element"). Usi
provisioning was well within the capabilities of a POSITA and would have been a mere design choice. Moreover, a PO
reasonable expectation of success in using APDU commands for provisioning because APDU commands were already e
communicating with the secure element when conducting a payment transaction with a contactless card reader.
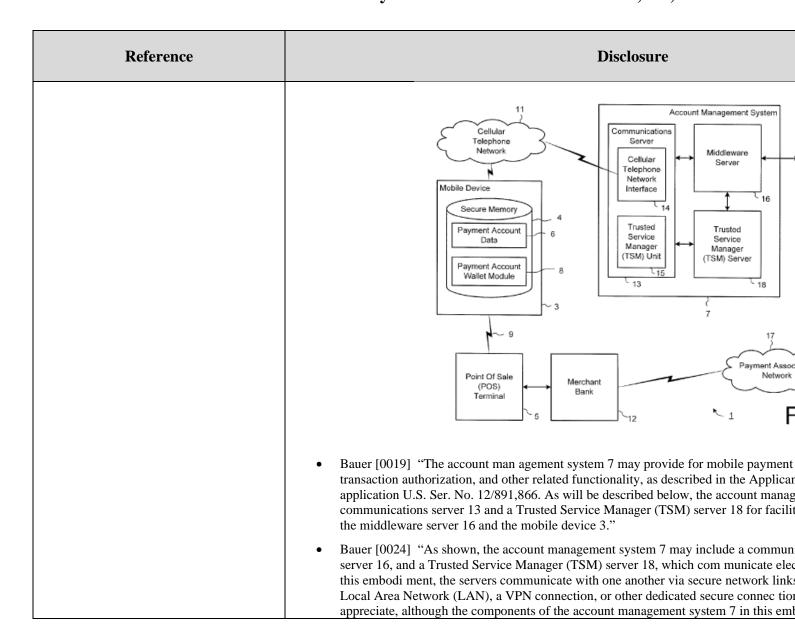
Apple incorporates by reference its December 9, 2019 filing (Paper 7) in IPR2020-00019, including the prior art referen
Ex. 2028-1032).

To the extent Fintiv contends that any reference identified in Exhibit A does not disclose any portion of the OTA proxy
are disclosed by the references herein. Moreover, the exemplary pincites to the prior art identified in the table below als
missing portions would have been obvious to one of ordinary skill in the art. Further, a person of ordinary skill in the ar
to combine each reference identified in Exhibit A with any one or more of the following references for at least the reaso
document of Apple's Initial Invalidity Contentions and Apple's Final Invalidit Contentions or as identified herein.

Reference	Disclosure
U.S. Pat. Pub. 2012/0095852 to Bauer et al. ("Bauer '852). Bauer '852 was filed Oct. 15, 2010.	*See, e.g.*: • Bauer, Abstract "A mobile payment method, system and graphical user inter face are and secured pay ment transactions from an electronic wallet on a user portable electro of sale terminal over a contactless communications link."

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Reference	Disclosure

- Bauer [0019] "The account man agement system 7 may provide for mobile payment transaction authorization, and other related functionality, as described in the Applicant application U.S. Ser. No. 12/891,866. As will be described below, the account manag communications server 13 and a Trusted Service Manager (TSM) server 18 for facilit the middleware server 16 and the mobile device 3."

- Bauer [0024] "As shown, the account management system 7 may include a commun server 16, and a Trusted Service Manager (TSM) server 18, which com municate elec this embodi ment, the servers communicate with one another via secure network links Local Area Network (LAN), a VPN connection, or other dedicated secure connec tion appreciate, although the components of the account management system 7 in this emb

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Reference	Disclosure
	separate servers, one or more of the servers could be provided as software and/or har⌁ server."
	• Bauer [0025]. "As shown in FIG. 1, data may be communicated between the mobile server 16 over the cellular telephone network 11 via a cellular tele phone network int⌁ server 13. The TSM server 18 may perform logical data preparation of the data to be ⌁ device, for example by forming appropriate commands to be written to the secure me⌁ As those skilled in the art will appreciate, the precise form of the data may depend on⌁ the secure memory 4 of the mobile device 3 and/or the payment asso ciation scheme ⌁ The TSM server 18 may also perform encryption of the data, for example of the sensi⌁ information in the mobile payment account data 6 Such as payment keys. The TSM s⌁ encrypted data to the mobile device 3 via the communications server 13 and the cellu⌁
	• Bauer [0026] "he communications server 13 may also include a separate TSM unit 1⌁ the mobile device 3, as will be known to the skilled person. In the above example, the⌁ communications server 13 would not access any of the sensitive portions of the encry⌁ mobile device 3 via the cellular telephone network interface 14."
	• Bauer [0036]. "FIG.2b is a block diagram showing the main func tional elements of t⌁ configured to execute processing instructions of the payment applet 40 and the authen⌁ an embodiment of the invention. As will be discussed in greater detail below, the mo⌁ module 8 may call the payment applet instance 40 to conduct a payment transaction p⌁ waves the mobile device 3 past the contactless communication interface of the POS te⌁ in this embodiment, the pay ment applet 40 may provide functional elements for auth⌁ generating an authorization request 40-2, transmitting an authorization request 40-3 a⌁ completed payment transaction 40-4. for example. The payment applet 40 may call th⌁ 46 to process, authorize and allow a payment transaction to proceed. The authenticati⌁ application if the PIN has been set and if it will allow the transaction to proceed based⌁ As shown in FIG.2b, the authentication applet 46 may also provide functional elemen⌁ locking the PIN 46-2, obtaining a user defined security word 46-3 from the secure da⌁ currently writeable 46-4, verifying the PIN 46-5, setting a PIN-verified flag 46-6, cle⌁ resetting the PIN 46-8, updating the security word 46-9, updating the Risk flag 46-10⌁ and retrieving the PIN-verified flag 46-12. Functional elements 46-1 to 46-7 and 46-1⌁ mobile payment wallet application module 8, as will be described below. Functional e⌁ called by the account management system 7, for example from the middleware server⌁ form of APDU commands to execute in the secure element for remotely setting the P⌁ described below. Functional elements 46-12, as well as 46-7, are typi cally called by t⌁

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