

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC.,
Petitioner

v.

HBCU MESSAGING US LP,
Patent Owner

IPR2026-00104
U.S. Patent No. 11,653,183

PATENT OWNER'S PRELIMINARY RESPONSE

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Patent Trial and Appeal Board
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Submitted Electronically via P-TACTS

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Exhibit	Description
2025	District Court Litigation, HBCU's August 15, 2025, Proposed Constructions of Claim Terms
2026	District Court Litigation, Apple's August 15, 2025, Proposed Constructions of Claim Terms
2027	District Court Litigation, January 23, 2026, Claim Construction Hearing Transcript
2028	District Court Litigation, January 26, 2026, email from Michael Shore to the District Court
2029	District Court Litigation, January 26, 2026, email response from the District Court
2030	IPR2025-00785, Decision Denying Institution of IPR (November 4, 2025)

I. INTRODUCTION

Petitioner Apple, Inc. (“Petitioner”) filed a Petition for *Inter Partes* Review of claims 1-30 of U.S. Patent No. 11,653,183 (“the ’183 patent”) on October 31, 2025. In addition to the reasons set forth in Patent Owner’s Discretionary Denial Briefing (Paper No. 7), the Petition should be denied on the merits for at least the following reasons.

First, Petitioner applies vastly different approaches to claim construction in the Petition versus at District Court. The District Court Judge called out Petitioner’s behavior with concern: “Why are you proffering a construction in this case when you did not proffer one at the PTAB?” (Ex. 2027, January 23, 2026 Claim Construction Hearing Tr. at 24:24-25:1.) As set forth below, those issues have been exacerbated rather than mooted by the Court’s recent *Markman* hearing, its Order, and the Parties communications surrounding both.

Second, for each independent claim, the Petition completely fails to demonstrate the presence of every recited element within the collection of asserted references. Thus the Petitioner’s asserted combination, even if made, would fail to disclose every element of even a single independent claim. The Petition thus fails to make out even a *prima facie* case of obviousness.

Third, Petitioner’s supposed motivation to combine is contradicted by its own asserted references. These references not only describe systems that operate

in completely different manners, but any combination would only decrease efficiencies, increase network traffic, and undermine the very goals that the “combination” purports to advance.

For each of these independent reasons, institution of the Petition should be denied.

II. FACTUAL BACKGROUND

A. Technical Background

The '183 patent resulted from the pioneering efforts of Graham Merrett in the field of messaging services, and in particular, the selection of certain services to enhance the operation of messaging systems. The Inventor has multiple patents in this space, and the '183 patent represents just one example of his innovations.

As explained in the patent specification (Ex. 1001, '183 patent at 1:29-2:6), Short Messaging Service (SMS) is a cellular technology for sending and receiving short text messages between mobile users. It was first introduced in the Global System for Mobile Communications (GSM) standards in the 1990s but was subsequently included in other wireless standards such as Code Division Multiple Access Systems (CDMA).

Although SMS is extremely popular, one of its biggest drawbacks was that an SMS message can only carry a small amount of data, due to limitations imposed by the Mobile Application Part (MAP) protocol of SS7. Previously, an SMS

message could only contain up to 160 8-bit alphanumeric or binary characters, and any message longer than 160 characters was usually sent in multiple messages.

(*Id.* at 1:30-43.)

A Short Messaging Service Center (SMSC) is responsible for handling the delivery of SMS messages in a wireless communications network. An SMS message sent by a mobile user is first delivered to the user's network SMSC before being routed to the recipient. If the recipient's network is operated by a different provider or employs a different wireless standard, the message may pass through more than one SMSC or SMSC gateway before reaching its final destination. Typically, signaling System 7 (SS7) provided the transport mechanism for SMS traffic. (*Id.* at 1:62-2:7),

Several messaging services acted as extensions to SMS. Enhanced Messaging Service (EMS), which uses existing SMS infrastructure, allowed up to 255 SMS messages to be packaged as one EMS message having richer content such as animation, pictures, sounds, and formatted text. Multimedia Messaging Service (MMS) messages allowed yet further functionality and were delivered using a packet data network operating within the cellular system. MMS was first introduced in 2.5 generation networks such as GPRS, which provides an Internet Protocol (IP) overlay to the existing GSM networks. A multimedia message may contain images, audio clips, and videos. (*Id.* at 2:7-20.)

As further described in the patent, another technology, Mobile Instant Messaging (MIM), enabled mobile devices to engage in real-time, instant messaging via an internet protocol data network. Users typically needed to register a user name tag or “handle” with an instant messaging service provider to send and receive messages. Many then-current MIM services also required users to maintain a persistent connection with the Internet during a chat session. (*Id.* at 2:49-3:2.)

The inventions of the ’183 patent address multiple gaps in the prior technology, providing a system that can transmit short message service messages via a cellular network, or alternatively packet switched messages via a packet switched message service (PSMS) that operates outside the cellular core network. The system includes a server or collection of servers that support the PSMS and may also maintain status information and queue messages for delivery as needed. (*Id.* at 4:49-54; 6:10-32; 10:10-18.)

In practice, the sending mobile phone sends a request to a server residing outside the cellular core network, querying whether the recipient device address corresponds to a subscriber address. If so, the sending mobile phone sends the message via the PSMS. If not, the sending mobile phone sends the message via SMS. (*Id.* at at 11:36-12:18.) The ’183 patent also departed from conventional MIM systems by doing away with the requirement that an instant messaging user

register a user nametag or handle for purposes of identifying the user to the system. Instead, the '183 patent teaches that the user's mobile phone number be utilized as the user's identifier:

The destination address may be a mobile phone number or a numeric "shortcode" or alias representing one or more, or a combination of, phone numbers, email addresses, instant messaging user handles and IP addresses. Therefore, for all users of the messaging service, and unlike conventional MIM clients, the invention utilizes a user's mobile phone number as the identifier of the user, and does not require the user to register a user name, tag or handle, thus providing a single number for message sending.

(*Id.* at at 3:40-47.)

The patent also addresses situations in which the recipient mobile phone is not connected to the server when the packet switched message is sent. In that situation, the '183 patent teaches that message may be queued by the server until the recipient device connects to the server. (*Id.* at at 4:16-22.) Messages received over both SMS system and the PSMS system are displayed by the same messaging application. (*Id.* at 9:24-36.)

B. Apple's Knowledge of the Patent at Issue and Patent Family

Apple has been aware of the '183 patent's family for at least a decade. That familiarity stems not only from communications between Apple and both the previous and current patent owner but from litigation in multiple jurisdictions over the last decade and the citation of multiple related patents and applications in Apple's own U.S. patents.

1. The '183 Patent and Its Priority Applications

The '183 patent claims priority to the Australian patent AU/2008201643 (the “AU 643 application”) which, in turn, claims priority to two separate 2007 Australian patent applications, AU/2007/903979 (the “AU 979 application”) and AU/2007/906230 (the “AU 230 application”) (the “Australian applications”). The Australian applications are the parents of a family encompassing dozens of applications and patents worldwide, all of which share the same, single inventor.

Apple cites multiple applications and patents from the '183 patent family in its own patents. For instance, U.S. Pat. App. No. 2014/0295899 (the “'899 application”), which resulted in the U.S. Patent No. 8,918,128 (the “'128 patent”), claims priority to the same two Australian applications. The '899 application is cited on the face of Apple’s U.S. Pat. No. 12,262,197, (Ex. 2002 at 2), and the '128 patent is cited in Apple’s U.S. Pat. No. 11,775,145. (Ex. 2003 at 2.) Another application tracing back to the same Australian applications, U.S. Pat. App. 2014/307184 is cited on the face of four separate Apple patents, U.S. Patents No. 11,743,375, 12,265,696, 12,348,663, and 11,775,145. (Exs. 2004-2007.)

2. A Decade of German Litigation

Prior to assigning the patent to HBCU, the previous patent owner asserted the German equivalent patent against Apple in Germany in 2015. That case led Apple to file a Nullity Action in the German Patent Court. One of the references

asserted by Apple in the Nullity Action was the Tsampalis PCT, which has the exact same substance as the Tsampalis reference asserted in this Petition. Initially, the German patent at issue was found unpatentable, but amended claims were upheld as valid by Germany's highest court. (Ex. 2015, BGH, Judgment of December 15, 2020 - X ZR 120/18 - Federal Patent Court at 1-3.) Of course, as with the claims challenged here, those amended European claims include elements and features different from the original claims of the European patent.

Importantly, as Apple asserted various prior art references and arguments in Germany, the previous patent owner submitted that art to the USPTO in further ongoing prosecution of the '183 patent family. (Likewise, HBCU continues to diligently update the Examiner in the current U.S. prosecution with Apple's invalidity submissions in ongoing U.S. litigation.)

Accordingly, all U.S. patents issued in the family since that time—including the '183 patent at issue—were allowed over the Tsampalis PCT, as well as other prior art submitted by Apple in Germany. (*See* Ex. 1001 at 2 (cover page identifying WO 2004/061583 and other references); *see also* Ex. 2016, EP 2 177 072 (DE document number 60 2008 022 036.2) Nullity Action at 7 (“With respect to the prior art, we refer to the following citations, appended hereto as Exhibits. . . The prepublished international patent application WO 2004/061583 A2, published on 22 July 2004, hereinafter referred to as ‘MOTOROLA’”).)

3. U.S. District Court Litigation

On October 07, 2024, Patent Owner filed a Complaint against Apple in the Western District of Texas, (Ex. 2001, District Court Case, Dkt. 1), followed by a First Amended Complaint (“FAC”) on Jan. 24, 2025 (Ex. 2017, District Court Case, Dkt. 32). The District Court litigation has progressed steadily since. The parties have served their preliminary contentions and fully briefed claim construction. (Ex. 2018, District Court Case, Dkt. 49.) The claim construction hearing took place as scheduled for January 20, 2026. (*Id.* at 2-3.) The case is set for trial in July 2027. (*Id.* at 4.)

C. Apple’s Vastly Different Claim Construction Positions at the PTAB Versus in District Court

While here Petitioner has stated that “no formal constructions are presently necessary,” (Pet. at 4), and are relying on the plain and ordinary meaning for each term—indeed for every term in all seven related IPRs—Petitioner’s approach in District Court was the exact opposite. Petitioner proposed multiple terms for construction in the District Court, offered various proposed constructions of terms, and sought indefiniteness of one term.

Both parties claim construction proposals were developed and exchanged well in advance of the Petition filing. (Exs. 2025 and 2026, HBCU and Apple’s August 15, 2025 Proposed Construction of Claim Terms.) Thus, Petitioner has zero excuse for failing to make the Board and Director aware of each side’s

proposals, much less for failing to apply even its own District Court proposal within the Petition. This represents a classic case of seeking tactical advantage by applying one claim construction for infringement and another construction validity.

Indeed, Petitioner's inconsistent positions on claim construction risk inconsistent rulings even on the very same prior art asserted in the Petition. The District Court Judge expressed concern regarding this tactic:

THE COURT: I got it. I got it. And so -- and with regard to this claim term, what construction did you proffer at the PTAB?

MR. MALLOY [Apple's Counsel]: We didn't proffer any construction. We were applying the plain and ordinary meanings.

THE COURT: And what's the difference between the PTAB and my Court?

MR. MALLOY: It's the same claim construction standard is my understanding. And what I'm trying to express is that we haven't taken any --

THE COURT: No. I -- maybe my question wasn't clear. ***Why are you proffering a construction in this case when you did not proffer one at the PTAB?***

(Ex. 2027, January 23, 2026 Claim Construction Hearing Tr. at 24:13-25:1.)¹

The District Court's confusion is understandable, and following the District Court's claim construction Order the risk of inconsistent rulings has only escalated. Specifically, one term addressed at District Court—the term “bearer”—is at issue

¹ Unless otherwise indicated, emphasis in this brief has been added.

in this Petition. Petitioner proposed a construction of “bearer” at District Court, yet neither offered nor applied any construction here.

Importantly, while in its *Markman* order the District Court adopted the “plain and ordinary meaning” of various terms *for now* (as well as a specific construction for one term), that has not mooted the issue. Instead, both the Court and Parties currently understand that at least one set of terms may require further construction later, because the parties likely dispute what that plain and ordinary meaning is. (See Ex. 2028, Email from Shore to Court (“The parties have differing positions on what the plain and ordinary meaning for these four terms should be.”); Ex. 2029, Email from Court. (“Judge Albright would like to see more briefing at the summary judgment stage.”).)

Inherent in this percolating dispute is the fact that *Petitioner has a specific view of the plain and ordinary meaning of each term*; otherwise there would be no ongoing issue for the one set of terms clearly in dispute. Yet here at the PTAB Petitioner conceals both its view of the plain and ordinary meaning and the more basic fact that any terms were in dispute at all.

D. The Challenged Claims

Petitioner challenges claims 1-30 of the patent, including independent claims. As set forth below, given that the asserted prior art fails to disclose

regarding the independent claims, the Petitioner's arguments regarding the dependent claims must also be rejected.

The claims are reproduced below, with Petitioner's labelling of the elements for convenience only:

Claim 1	
1pre	A system comprising:
1a	a sending mobile phone that transmits short message service (SMS) messages via a cellular network and packet switched messages via a packet switched message service (PSMS); and
1b	server that supports the PSMS;
1c1	wherein: the sending mobile phone retrieves first information representing a phone number of a first receiving mobile phone from a first message and
1c2	sends the first information to the server;
1d	the server, in response to receipt of the first information, sends a first response to the sending mobile phone when the phone number of the first receiving mobile phone is not associated with a subscriber of the PSMS;
1e	after the first response is received by the sending mobile phone, the sending mobile phone sends the first message via an SMS bearer to the first receiving mobile phone;
1f1	the sending mobile phone retrieves second information representing a phone number of a second receiving mobile phone from a second message being composed and
1f2	sends the second information to the server; the second receiving mobile phone being associated with a subscriber of the PSMS;

1g	the server, in response to receipt of the second information, sends a second response to the sending mobile phone, the second response communicating a different query result than the first response;
1h	the sending mobile phone sends the second message via a wireless local area network (WLAN) and via the PSMS, to the second receiving mobile phone on a condition that a maximum number of undelivered messages corresponding to the second receiving mobile phone has not been exceeded;
1i	the PSMS is a service for sending and receiving packet switched messages other than SMS, enhanced message service (EMS) and multimedia message service (MMS) messages; and
1j	content of the first message and content of the second message is displayed by a same messaging client.
Claim 2	
2pre	The system of claim 1,
2a	wherein one or more undelivered messages are queued for later delivery to the second receiving mobile phone;
2b	wherein the sending mobile phone and the second receiving mobile phone are authenticated to the PSMS based on hardware identification.
Claim 3	
3	The system of claim 2, wherein the server, in response to receipt of the second information, sends the second response to the sending mobile phone when the phone number of the second receiving mobile phone has an active status.
Claim 4	
4	The system of claim 3, wherein the second receiving mobile phone has an active status when the one or more undelivered messages queued for later delivery do not exceed the maximum number of undelivered messages.
Claim 5	

5	The system of claim 1, wherein subsequent to one message becoming queued for the second receiving mobile phone, messages from another sending mobile phone to the second receiving phone are no longer routed via the PSMS.
Claim 6	
6	The system of claim 1, wherein a third message is sent to the second receiving mobile phone, via an SMS bearer, on a condition that the maximum number of undelivered messages has been exceeded.
Claim 7	
7pre1	A method performed by
7pre2	a sending mobile phone that transmits short message service (SMS) messages via a cellular network and packet switched messages via a packet switched message service (PSMS), the method comprising:
7a1	retrieving, by the sending mobile phone, first information representing a phone number of a first receiving mobile phone from a first message and
7a2	sending the phone number of the first receiving mobile phone to a server;
7b	receiving, by the sending mobile phone, a first response, when the phone number of the first receiving mobile phone is not associated with a subscriber of the PSMS;
7c	sending, by the sending mobile phone, after the first response is received by the sending mobile phone, the first message, via an SMS bearer, to the first receiving mobile phone;
7d1	retrieving, by the sending mobile phone, second information representing at least a phone number of a second receiving mobile phone from a second message being composed and
7d2	sending the phone number of the second receiving mobile phone to the server, the second receiving mobile phone being associated with a subscriber of the PSMS;

7e	receiving a second response, by the sending mobile phone, the second response communicating a different query result than the first response; and
7f	sending, by the sending mobile phone, a second message via a wireless local area network (WLAN) and via the PSMS, to the second receiving mobile phone on a condition that a maximum number of undelivered messages corresponding to the second receiving mobile phone has not been exceeded;
7g	wherein the PSMS is a service for sending and receiving packet switched messages other than SMS, enhanced message service (EMS) and multimedia message service (MMS) messages; and
7h	wherein content of the first message and content of the second message is displayed by a same messaging client.
Claim 8	
8	The method of claim 7, wherein one or more undelivered messages are queued for later delivery to the second receiving mobile phone; wherein the second message is sent according to an email address.
Claim 9	
9	The method of claim 7, wherein the server, in response to receipt of the second information, sends the second response to the sending mobile phone when the phone number of the second receiving mobile phone has an active status; wherein the second message is sent according to a user identifier.
Claim 10	
10	The method of claim 9, wherein the second receiving mobile phone has an active status when the one or more undelivered messages queued for later delivery do not exceed the maximum number of undelivered messages.
Claim 11	

11	The method of claim 7, wherein subsequent to one message becoming queued for the second receiving mobile phone, messages from another sending mobile phone to the second receiving phone are no longer routed via the PSMS.
Claim 12	
12	The method of claim 7, further comprising: sending, by the sending mobile phone, a third message to the second receiving mobile phone, via an SMS bearer, on a condition that the maximum number of undelivered messages corresponding to the second receiving mobile phone has been exceeded.
Claim 13	
13	The method of claim 7, wherein the sending mobile phone is authenticated to the PSMS via a hardware identification and the sending mobile phone is authenticated to the PSMS via SMS protocol.
Claim 14	
14pre	A system comprising:
14a	a sending mobile phone that transmits short message service (SMS) messages via a cellular network and packet switched messages via a packet switched message service (PSMS); and
14b	at least one server that supports the PSMS;
14c1	wherein: the sending mobile phone retrieves first information representing a phone number of a receiving mobile phone from a first message being composed and
14c2	sends the first information to the at least one server;
14d	the at least one server, in response to receipt of the first information, sends a first response to the sending mobile phone, the receiving mobile phone being associated with a subscriber of the PSMS;

14e	after the first response is received by the sending mobile phone, the sending mobile phone sends the first message to the receiving mobile phone via a wireless local area network (WLAN) and the PSMS;
14f	the sending mobile phone sends second information representing the phone number of the receiving mobile phone to the at least one server;
14g	the at least one server, in response to receipt of the second information, sends a second response to the sending mobile phone based at least in part on a message being undelivered to the receiving mobile phone, the second response communicating different information than the first response;
14h	the sending mobile phone sends a second message via an SMS bearer, to the receiving mobile phone, subsequent to the sending mobile phone receiving the second response;
14i	the PSMS is a service for sending and receiving packet switched messages other than SMS, enhanced message service (EMS) and multimedia message service (MMS) messages; and
14j	content of the first message and content of the second message is displayed by a same messaging client.
Claim 15	
15	The system of claim 14, wherein the message undelivered to the receiving phone is delivered to the at least one server of the PSMS.
Claim 16	
16	The system of claim 15, wherein the message undelivered to the receiving phone is sent by the sending mobile phone.
Claim 17	
17	The system of claim 15, wherein the message undelivered to the receiving phone is sent by another mobile phone.
Claim 18	

18	The system of claim 14, wherein the at least one server receives information from another mobile phone, the information indicating alternative capabilities.
Claim 19	
19	The system of claim 18, wherein based on receipt of the information indicating alternative capabilities, information associated with at least one capability of the subscriber is updated.
Claim 20	
20pre1	A method performed by
20pre2	a sending mobile phone that transmits short message service (SMS) messages via a cellular network and packet switched messages via a packet switched message service (PSMS), the method comprising:
20a1	retrieving, by the sending mobile phone, a phone number of a receiving mobile phone from a first message being composed and
20a2	sending first information representing the phone number of the receiving mobile phone;
20b	receiving, by the sending mobile phone, a first response to the sending, wherein the first response indicates that the receiving mobile phone is associated with a subscriber of the PSMS;
20c	after the first response is received by the sending mobile phone, sending, by the sending mobile phone, the first message via a wireless local area network (WLAN) and the PSMS; and
20d	sending, by the sending mobile phone, a second message via an SMS bearer, to the receiving mobile phone, subsequent to the sending mobile phone receiving the first response and based at least in part on the first message being undelivered to the receiving mobile phone;
20e	wherein the PSMS is a service for sending and receiving packet switched messages other than SMS, enhanced message service (EMS) and multimedia message service (MMS) messages.
Claim 21	

21	The method of claim 20, wherein the first message is undelivered to the receiving mobile phone but is delivered to a server of the PSMS.
Claim 22	
22pre	The method of 20,
22a	wherein the first message is undelivered to the receiving mobile phone;
22b	wherein the sending mobile phone is authenticated to the PSMS via a hardware identification and the sending mobile phone is authenticated to the PSMS via SMS protocol.
Claim 23	
23	The method of claim 20, wherein the first message is queued for delivery by the sending mobile phone.
Claim 24	
24	The method of claim 20, wherein a server of the PSMS receives information from another mobile phone, the information indicating alternative capabilities.
Claim 25	
25	The method of claim 24, wherein based on receipt of the information indicating alternative capabilities, information corresponding to the subscriber associated with the receiving mobile phone is updated.
Claim 26	
26	The method of claim 20, wherein a second response is received, based at least in part on another message being undelivered to the receiving mobile phone, wherein the second response indicates that at least one message should not be sent via the PSMS.
Claim 27	
27	The method of claim 20, further comprising: receiving a third message, via the PSMS, based on an email address of the sending mobile phone.
Claim 28	

28	The method of claim 27, wherein the third message is received by a plurality of devices.
Claim 29	
29	The method of claim 20, further comprising: receiving a third message, via the PSMS, based on a user identifier of the sending mobile phone.
Claim 30	
30	The method of claim 20, wherein during the entire time between when the phone number of the receiving mobile phone is retrieved and when the first response is received, the receiving mobile phone is not connected to any message server.

The Petitioner has challenged all 30 claims on a single ground, specifically, obviousness in view of the combination of the multiple separate references:

Horvath, Tsampalis, Kansal, and Dorenbosch. (Petition, Paper 2 at 1.)

III. CITED REFERENCES

Petitioner’s obviousness combination—and the way it employs the combination throughout the Petition—is fundamentally flawed and legally improper.

Petitioner pieces together a multiple-reference combination that it asserts against each of the challenged independent claims, with additional references tacked on for most dependent claims. In doing so, Petitioner manufactures what it names as the “Horvath-Tsampalis-Kansal-Dorenbosch combination,” and treats that as a single “reference”—something that Petitioner then speaks of as if it

actually exists as a unified disclosure and can be measured against the claims. (*See* Pet. at 19.)

As set forth below, this approach is legally improper. Even worse, it disguises the numerous instances in which Petitioner simply fills in details where ***the references themselves contain insufficient disclosure***. These are revealed by the Petition’s many resorts to asserting what would have been “obvious” even in light of the full multiple-reference combination, rather than disclosed within any of the individual references. (*See, e.g.*, Pet. at 29 (“To the extent the preamble is limiting, Horvath-Tsampalis-Kansal-Dorenbosch renders [1pre] obvious.”); *see also id.* at 20, 22, 28 (additional statements beginning with a “POSITA would have found it obvious . . .” or “POSITA would have found obvious . . .”).)

The problem with Petitioner’s analysis is that “Horvath-Tsampalis-Kansal-Dorenbosch” *does not exist*. Yet Petitioner treats it as if it were a single, unitary reference and then springboards its obviousness analysis from that fake starting point. In reality, the prior art references cited by Petitioner, either alone or in combination, fail to teach all the elements of any independent claim, and thus Petitioner’s arguments fail at the outset. Each reference asserted against the independent claims is summarized briefly below.

A. Horvath (Ex. 1004)

Petitioner cites Horvath, Ex. 1004. As set forth below, Horvath is cumulative with multiple references that were cited in original prosecution. For at least the same reasons that the claims were originally allowed, as well as at least the reasons set forth below, Horvath, alone or in combination with the other cited references, does not teach or suggest the claimed subject matter of the '183 patent.

Petitioner concedes that Horvath focuses on SMS messages only. “Horvath focuses on the selective use of packet switched or circuit switched bearers for delivery of SMS messages.” (Pet. at 8.) As such, Horvath is concerned with messaging that is sent by way of a cellular network, not outside the cellular network.

Horvath identifies a problem associated with the conventional transmission of SMS messages, which is that SMS traffic was traditionally transmitted in the same circuit switched networks used by cellular providers to carry voice traffic:

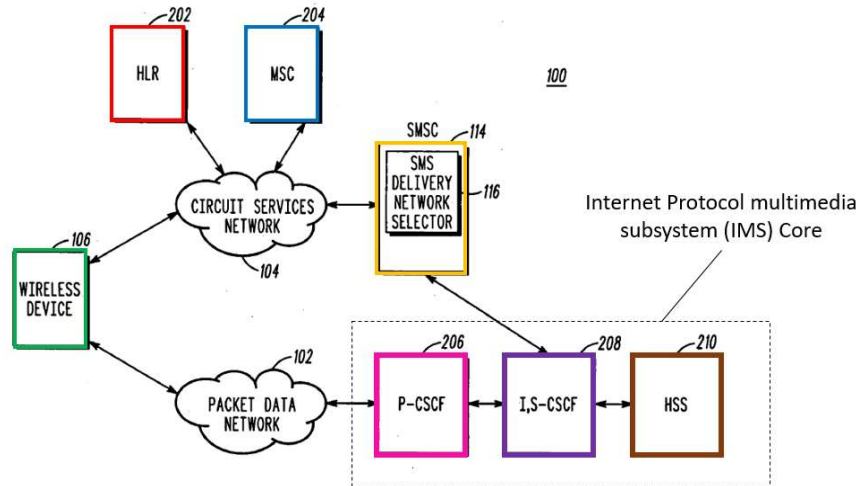
One problem with the traditional way of transmitting SMS messages discussed above is that the circuit services network is primarily used for voice services. The circuit services network is unnecessarily burdened with SMS traffic. Network resources such as air interface capacity and MSC capacity, among other things, are decreased.

(Ex. 1004 at [0004].)

Horvath explains that, in order to overcome this problem, some cellular providers utilize a packet data network (as opposed to a circuit services network)

for transmission of SMS messages. (*Id.* at [0004].) However, this solution still burdened the overhead of the traditional cellular network because the Short Message Service Center (SMSC) did not know whether the intended recipient device was registered to receive messages over a packet data network. (*Id.*) As a result, the SMSC (operating within the traditional cellular network) still “needs to query a home subscriber server (‘HSS’) to determine the registration status of the recipient device. This process creates unnecessary overhead for the system.” (*Id.*)

Figure 2 of Horvath (reproduced produced below with added color annotations) illustrates Horvath’s proposed solution, in which a sending wireless device 106 (dark green box) is coupled to the packet data network 102 and the circuit services network 104. (*Id.* at [0034].) A home location register (“HLR”) 202 (red box) that helps route calls and SMS messages is also coupled to the circuit services network 104. The HLR is a database that holds subscription information associated with wireless devices subscribing in the circuit services network. (*Id.* at [0002].) A mobile switching center (“MSC”) 204 (blue box) that manages communications between the wireless device 106 and the public switched telephone network (“PSTN”), is also coupled to the circuit services network. (*Id.* at [0031]-[0032].)



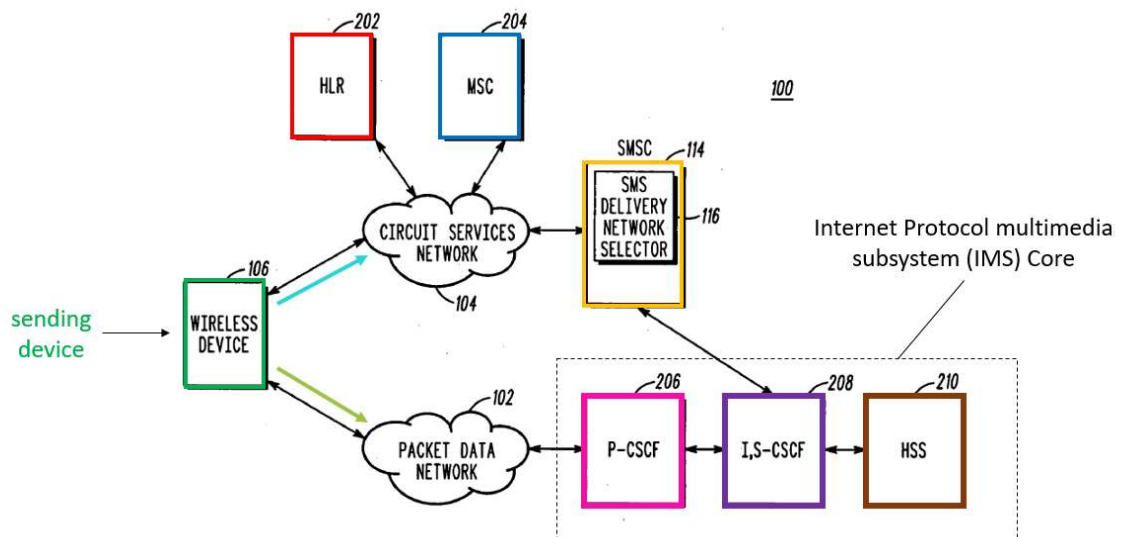
In the Horvath framework, the SMSC 114 (orange box) is directly coupled to the circuit services network 104, and indirectly coupled to the packet data network 102 via a proxy call session control function (“P-CSCF”) 206 (pink box), an interrogating/serving call session control function (“I,S-CSCF”) 208 (purple box) and a registrar such as a home subscriber server (“HSS”) (brown box). (*Id.* at [0033].) The P-CSCF 206, I,S-CSCF 208, and HSS 210 together “comprise part of an Internet Protocol multimedia subsystem (‘IMS’) core” (black dotted line box, present in the original) that supports a session internet protocol (“SIP”) network “used for establishing instant messaging, telephone calls, and other real time communications over the Internet.” (*Id.* at [0033]-[0034].)

Within the IMS core, the HSS 210 maintains a database with a profile (e.g., the telephone number) of each wireless device 106 registered with the IMS core. In addition, the “S-CSCF notifies the SMSC 114 that the wireless device 106 has registered,” and “also transmits SIP contact information associated with the

wireless device” so that the SMSC 114 can deliver a SMS message to the wireless device 106 over the packet data network 102. (*Id.* at [0040].)

In this manner, each wireless device registered with the IMS core can send and receive SMS messages through the packet data network 102. (*Id.* at [0040], [0044], [0053].) By contrast, each wireless device not registered with the IMS core can only send and receive SMS messages through the circuit services network 104. (*Id.* at [0047], [0050].) Through use of the IMS-based network, Horvath moves some SMS messaging traffic off the circuit network 104 and onto the IMS-based data network (packet data network 102), thereby providing capacity relief on the circuit services network 104 without unduly burdening the SMSC. (*Id.* at [0039].)

The operation of Horvath is set forth in the reproduction of Horvath’s Figure 2 below, further annotated in color for convenience.



Significantly, the sending wireless device 106 decides which network to use based on the *capabilities of the sender's device*. (*Id.* at [0050], Fig. 2.) This aspect of Horvath stands in contrast with claim 1 of the '183 patent, where the sending mobile phone selects a transmission mode based on a response to a server query regarding whether the recipient device is also registered with the same external packet switched messaging system.

Horvath is cumulative to multiple references cited during original prosecution. As set forth in the Abstract of Horvath, it relates to transmitting “short message service messages” through two alternative pathways, one of which is a packet data network:

The short message service message is destined for reception by a wireless device (106). Prior to receiving the request, a short message service center (114) determines if a wireless device (106) is registered with a registrar (210) associated with a session initiation protocol network for communicating over a packet data network (102). The short message service message is transmitted to the wireless device (106) through the session initiation protocol network communicating over the packet data network (102) in response to the request and with the determination that the wireless device (106) is registered with the registrar (210).

(*Id.* at Abstract.)

Horvath is cumulative to multiple references cited in the original prosecution of the '183 patent, including U.S. Patent No. 6,678,524 (“Hansson,” Ex. 2010). Hansson’s Abstract similarly establishes that it relates to sending data through

either circuit-switched or packet-switched pathways via a mobile station, and selecting which pathway to utilize:

Upon receiving a request to deliver data addressed to the mobile station, a node in a circuit-switched network of a mobile telecommunications system identifies whether the mobile station is capable of receiving data via a packet data bearer. If so, the node further determines whether the data addressed to the mobile station should be sent via a packet data bearer in a packet-switched network instead of sending the data via a circuit-switched bearer.

(Ex. 2010 at Abstract.) The Background of Hansson confirms that the reference is specifically directed to SMS messages. (*Id.* at 1-14-55.)

B. Tsampalis (Ex. 1005)

Petitioner also cites Tsampalis, Ex. 1005. Notably, Tsampalis is wholly cumulative with at least one reference cited in original prosecution. Specifically, a substantively-identical version of Tsampalis was before the Examiner in original prosecution.

Specifically, the PCT application leading to Tsampalis, WO 2004/061583 (“Tsampalis PCT”), was in the record during prosecution of the ’183 patent and accordingly appears on the face of the ’183 patent. A comparison of the Tsampalis PCT with Tsampalis references asserted here demonstrates that they are substantively identical. (Ex. 1005, Tsampalis reference; Ex. 2009 Tsampalis PCT reference.) Unsurprisingly, Petitioner identifies no material differences between the references. Likewise, unsurprisingly, Tsampalis fails, either alone or in

combination with the other cited references, to teach or suggest the claimed subject matter of the '183 patent.

At the time of Tsampalis, cellular networks were known to support both the Short Messaging Service (SMS) as well the more recently introduced Multi-Media Service (MMS). (Ex. 1005 at [0002]-[0003].) However, such networks often included mobile messaging devices that were “compatible with only a subset of the supported concurrent multiple mobile messaging systems.” (*Id.* at [0003].)

Such networks permitted a mobile device with MMS messaging capability to send an MMS message to a receiving mobile device capable of only receiving SMS messages (but not MMS messages). (*Id.*) On the other hand, if an MMS-capable device sent an MMS message to a device capable of only processing SMS messages, the messages could be bounced back to the sender. “Being unable to process the message due to the incompatibility of its messaging service capabilities with that of the format of the received message, the receiving mobile messaging device then typically bounces the message back to the sending mobile messaging device,” which was undesirable. (*Id.*)

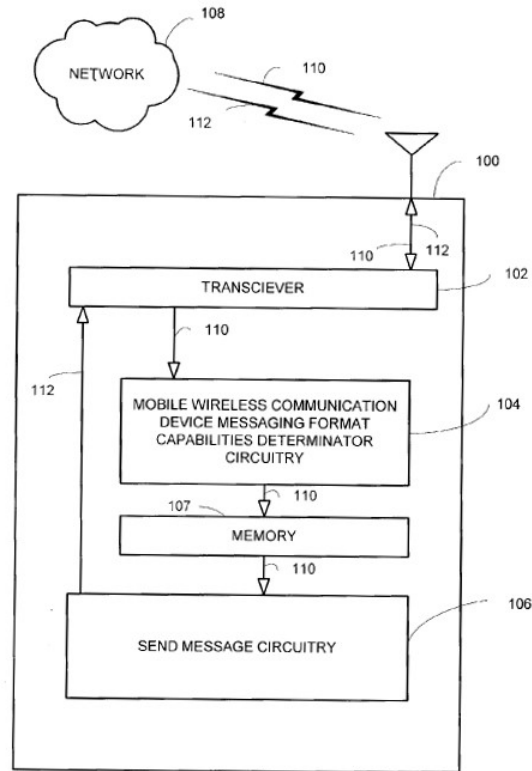
To resolve this problem, before sending a message (e.g., an MMS message) to a recipient device, the sender obtains the recipient device’s capabilities *from that recipient device*:

In one embodiment, such devices are also capable of obtaining messaging format capabilities information from a target or recipient

mobile wireless communication device, that reflect which types of non-real-time store-and-forward messaging formats a mobile wireless communication device is capable of processing. Such devices, using the messaging format capabilities information, then send[s] a message to a target mobile wireless communication device in a format that can be processed by the target mobile wireless communication device.

(*Id.* at [0022].)

Tsampalis is primarily directed to *cellular* messaging formats, namely SMS, EMS and MMS. As explained in the reference, Figure 1 of Tsampalis depicts the components of a “cellular telephone, two-way pager, or other device employing non-real-time store-and-forward messaging (e.g., SMS, EMS, MMS messaging).” The mobile device 100 contains a transceiver 102, mobile wireless communication device messaging format capabilities determinator circuitry 104, send messaging circuitry 106 and memory 107.” (*Id.* at [0024].) The “first mobile wireless communication device 100 is further connected to network 108,” e.g., a mobile cellular telephone network. (*Id.*)



The sending mobile device requests the second device's messaging capabilities from the second device itself. "In operation, the mobile wireless communication device messaging format capabilities determinator circuitry 104 communicates through the transceiver 102 to the network 108 to obtain second mobile wireless communication device messaging format capabilities information 110." (*Id.* at [0025].)

In turn, the second device returns the requested information to the sending device. "The second mobile wireless communication device messaging format capabilities information 110 is received back from the network 108 through

the transceiver 102 to the mobile wireless communication device messaging format capabilities determinator circuitry 104.” (*Id.*)

The sending device then uses that information to send the message in one of the formats within the capability of the second device. “The send message circuitry 106 operates to send a message in a message format compatible with at least one of the formats identified in the second mobile wireless communication device messaging format capabilities information 110.” (*Id.*) This is all feasible because Tsampalis is only concerned with messages flowing through the cellular system, not a separate system outside the cellular network. Thus all devices are accessible to one another through that one network.

Figure 2 shows the devices themselves in greater detail and confirms this overall communication flow. “After the first mobile wireless communication device 100 sends the second mobile wireless communication device messaging format capabilities information request 226, the second mobile wireless communication device 200’s remote messaging format capabilities determinator circuitry 208 receives the second mobile wireless communication device messaging format capabilities information request 226.” (*Id.* at [0035].) “The second mobile wireless communication device 200 retrieves and sends the second mobile wireless communication device messaging format capabilities information 110 to the first mobile wireless communication device 100 in response

to the information request 226 containing the second mobile wireless communication device messaging format capabilities information 110.” (*Id.*)

In another embodiment, a database local to the sending wireless device, (i.e., a phonebook or Contacts list) is used to determine the capabilities of the second mobile device. “Here, a local database is examined to see if the messaging capabilities of the second mobile wireless device are stored locally.” (*Id.* at [0047].)

Of course, it might be that the second device is not located within the local database. “[T]he method includes the operation of determining whether the second mobile wireless communication device 200 is not found in the local database (e.g., phonebook 222).” (*Id.*) In that case, the sending wireless device queries the second phone directly, as described above in the primary embodiment. “When the second mobile wireless communication device 200 is not found, . . . the method, as illustrated in block 1106, generates and sends a second mobile wireless communication device messaging format capabilities request 226 to the second mobile wireless communication device 200.” (*Id.*) “[T]he method includes the sending of a second mobile wireless communication device messaging format capabilities list from the second mobile wireless communication device 110 based on the second mobile wireless communication device messaging format capabilities request 226.” (*Id.* at [0048].)

Another embodiment of Tsampalis involves querying the Home Location Register regarding the second device's capabilities. In this embodiment, "while inputting the active message 216, the first mobile wireless communication device 100 will transparently contact the network talking to the address(es), (e.g., the MSISDN(s)), of the recipients(s), and try to talk with their home location register (HLR) to find out if they are capable of receiving an MMS message." (*Id.* at [0061].) The sending device then sends its message according to the information received from the HLR. (*Id.*) Notably, as set forth below, this is in contrast with Apple's treatment of the HLR and HSS in claim 1 and the other independent claims.

C. Kansal (Ex. 1042)

Kansal describes mobile messaging services for sending and receiving messages of different formats. (Ex 1042, Abstract, [0009], [0035] ("an IM application," "an SMS application," and "an MMS application"). Kansal, generally, describes a "unified messaging UI" from which a user may view received messages of various messaging types and may select from a variety of types when composing and sending a response, demonstrating the utility and viability of integration. (*Id.* at [0062], [0077]-[0078].) In particular, the unified messaging UI "display[s] a messaging thread comprising correlated messages of different message types," including "SMS messages, MMS messages, as well as

telephone messages, voicemail messages, fax messages, video conferencing messages, IM messages, and e-mail messages.” (*Id.* at [0009], [0045]-[0046], [0054]-[0056], [0062]-[0064], [0070], [0077]-[0078]; FIGs. 2-3.)

Kansal is cumulative to multiple references cited during original prosecution. For instance, U.S. Patent App.2010/0,131,858 (“Schultz,” Ex. 2011) is cited on the face of the ’183 patent. (Ex. 1001 at 2.) Schultz, like Kansal, discloses a unified user interface. Specifically, Schultz discloses:

A device may include a user interface configured to provide audio, video or haptic output in response to received communications. The device may also include logic to identify information associated with an availability status of a user of the device and provide an audio, video or haptic output via the user interface based on the information associated with the availability status of the user of the device.

(Ex. 2011 at Abstract.)

Likewise, WO 2005/018257 (“Maaniitty”) was before the Examiner in original prosecution. (Ex 2012, WO 2005/018257; Ex. 2008, ’183 patent File History at IDS, HBCU-App0001205-06.) (listing WO 2005/018257 “Maaniitty”).)

According to Maaniitty, the reference discloses:

a method for selecting a data transfer method in a telecommunication system wherein several data transfer methods exist for selection. The method comprises determining a message to be transmitted on the basis of inputs received from a user. At least one piece of property information concerning the message being entered or already entered is checked. In order to transmit the message, the data transfer method associated in predetermined selection conditions with the property information is selected.

(Ex. 2012, Maaniitty at Abstract.)

D. Dorenbosch (Ex. 1006)

Dorenbosch is limited solely to Instant Messain ("IM"). (*See generally* Ex. 20016.) It explains the then-conventional IM systems: "IM systems typically rely on a best-effort delivery mechanism in which a message intended for a target buddy is delivered if the IM login server determines that the target buddy is available." (Ex. 1006 at [0005].) "If the IM login server determines that the target buddy is not available, the message is dropped." *Id.*

Dorenbosch is clear that it deals exclusively with IM services, and depends on use of a "buddy list" or "buddy source" as shown in Fig. 1 below.

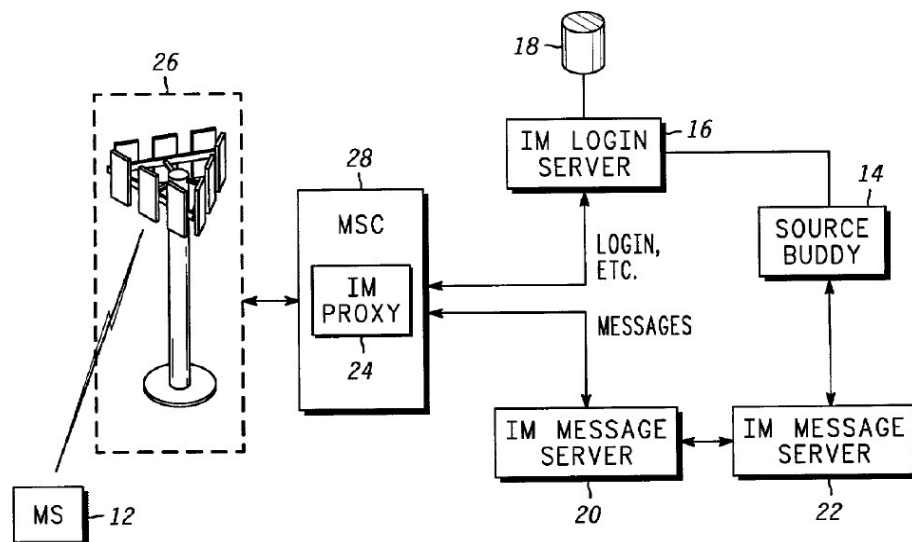


FIG. 1 10

(*Id.* at at FIG. 1.)

Dorenbosch is cumulative of multiple references originally cited during the prosecution of the patent. For instance, U.S. Patent No. 5,729,544 (“Lev”) discloses transmission of data over network, specifically disclosing:

Data to be transmitted from an information source (301), associated with a local/wide area network (303), to a target destination (317) is formatted into a plurality of data packets. Based on a message type of the data packets, either a circuit-switched network (311) or a packet-switched network (309) is selected. When the circuit-switched network is chosen, a circuit-switched channel (314) is established to the target destination, and the data packets are transmitted to the target destination via the circuit-switched channel. When the packet-switched network is chosen, a packet-switched channel (313) is established to the target destination, and the data packets are transmitted to the target destination via the packet-switched channel.

(Ex. 2013 at Abstract.)

Likewise, WO 2006/0167849 (“Marcus”) discloses optimizing IM systems to ensure message delivery under different conditions such as online or offline:

A method, system and computer program to engage and conduct instant messaging sessions on mobile devices. The system uses the GPRS protocol as the principal carrier to exchange messages in between users that are running their instant messaging application. The system further allows users who are not running their instant messaging application to be invited through SMS messages. Combining both protocols allows users to engage into an instant messaging session regardless of the status of their instant messaging application on their mobile device. A method may comprise initiating an instant messaging session; sending an instant message to a buddy; if the buddy is connected and engaged, then sending the instant message to the buddy; and if the buddy is disconnected, then sending an offline notification to the buddy. If the buddy is connected, then the instant message may be sent to the buddy using a GPRS protocol. The offline notification may be an SMS message indicating that an instant messaging session is available to the buddy. The method may also

comprise, if the buddy is connected and disengaged, then sending a notification identifying the instant messaging session to the buddy.

(Ex. 2014 at Abstract.)

IV. LEVEL OF ORDINARY SKILL IN THE ART

While Patent Owner generally agrees with the Petitioner's definition of a person of ordinary skill in the art ("POSITA"), Patent Owner finds that it ignores the knowledge gained from anything other than formal education.

Thus, Patent Owner adopts Petitioner's definition of a POSITA with one addition set forth in bold and italics:

A person of ordinary skill in the art relating to the subject matter of the '183 patent as of the critical date ("POSITA") would have had at least a bachelor's degree in computer science, electrical engineering, computer engineering, or a related field, with 2-3 years of industry experience in computer networking and wireless telecommunications. ***A formal university degree may be substituted by equivalent practical experience and education in the field.***

V. ARGUMENT

The Petition should be denied for at least three reasons.

First, Petitioner's concealment of differing claim construction positions in District Court and the PTAB should not be countenanced. Likewise, its substantive failure to apply anything other than "plain and ordinary meaning" here, when it obviously retains some specific view of the terms subject to construction in District Court *and* the ability to assert those meanings in District Court later, risks inconsistent rulings in District Court versus here.

Second, as set forth below, the Petition fails to demonstrate the presence of all claim elements even under its faulty claim construction analysis. The references cited in the Petition add nothing compared to the original prosecution of the '183 patent. One of the asserted references is substantively identical, while the others are cumulative. (*Id.* at 3.) Thus, the Examiner effectively addressed all the purported prior art references or their functional equivalents. The result is predictable: the Petition here fails to show all the elements of the claims, and in particular fails to the element “server” or, for method claims, its various recited functions.

Third, in addition to these references being duplicative and failing to show the presence of all elements, a POSITA would not be motivated to combine these references in the first place.

A. Petitioner’s Failure to Apply Consistent Claim Constructions Here and in District Court Should Be Rejected

As set forth above, Petitioner proposed, adopted, and applied differing claim constructions in District Court versus within the Petition. That includes the term “bearer,” which appears in all independent claims. In District Court, it is expected that the Parties and Court will address the construction of at least some terms again once the record is further developed. (*See* Ex. 2028, Email from Shore to Court (“The parties have differing positions on what the plain and ordinary meaning for

these four terms should be.”); Ex. 2029, Email from Court. (“Judge Albright would like to see more briefing at the summary judgment stage.”).)

These ongoing disputes only highlight the impropriety of Petitioner’s approach. Petitioner cannot assert that its failures regarding claim construction are mooted when the issues are still live, and even worse when Petitioner retains the flexibility at District Court to assert whatever “ordinary meaning” of terms it wants, while hiding that same position from the Board and Director here. Indeed, Petitioner’s entire approach begs the question of what other “ordinary meaning” interpretations it intends to apply in District Court versus before the Board, both for claim terms addressed in District Court and those unaddressed.

The use of one construction for purposes of infringement and a different construction for purposes of validity is a fundamental violation of the most basic principles of patent law and of simple fairness. *W.L. Gore & Assocs. v. Garlock, Inc.*, 842 F.2d 1275, 1279 (Fed. Cir. 1988) (“having construed the claims one way for determining their validity, it is axiomatic that the claims must be construed in the same way for infringement”). Yet that is exactly what Petitioner has held open for itself, by retaining an ability to mold the “ordinary” meanings at District Court while ignoring those constraints here.

Petitioner’s attempt to have the patents viewed differently in the different forums appears purely for strategic advantage: applying broader “plain and

ordinary” meanings in IPR while retaining flexibility to seek more specific, narrower meanings in District Court. For this reason alone, the Petition should be denied.

B. Petitioner Fails to Establish the Presence of the Recited “Server” in Each Independent Claim

Each independent claim includes at least one element—the recited “server” and its related functionality—that is completely missing from Petitioner’s cited art. Because the purported combination fails entirely to disclose at least one element, the Petition’s obviousness allegation must fail. *Par Pharm., Inc. v. TWi Pharms., Inc.*, 773 F.3d 1186, 1194 (Fed. Cir. 2014) (“We first must determine whether TWi carried its burden to prove that all claimed limitations are disclosed in the prior art. *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1164 (Fed. Cir. 2006) (stating that we consider motivation to combine and reasonable expectation of success only ‘if all the elements of an invention are found in a combination of prior art references’).”)

1. Independent Claim 1

Claim 1 is an independent claim directed to a mobile messaging system that automatically selects the most efficient delivery method—either SMS via a cellular network or packet-switched messaging via WLAN—by first querying a server to check if the recipient is a subscriber of the messaging service. If the recipient is a subscriber and a delivery limit has not been reached, the message is sent to the

packet switched messaging service via the wireless local area network; otherwise, the message is sent via an SMS bearer. (Ex. 1001 at claim 1.)

Claim 1 recites a “server” that performs specifically-recited functions, namely it “supports the PSMS,” receives “first information representing a phone number of a first receiving mobile phone,” and “sends a first response to the sending mobile phone when the phone number of the first receiving mobile phone is not associated with a subscriber of the PSMS”:

1b	server that supports the PSMS;
1c1	wherein: the sending mobile phone retrieves first information representing a phone number of a first receiving mobile phone from a first message and
1c2	sends the first information to the server;
1d	the server, in response to receipt of the first information, sends a first response to the sending mobile phone when the phone number of the first receiving mobile phone is not associated with a subscriber of the PSMS;

(See also claim 7, elements [7a2] and [7d2].)

In evaluating element [1b] of claim 1, Petitioner points to a combination of components within Horvath that purportedly comprise the “server.” But critically, *those components never perform the claimed functions collectively recited in elements [1c1], [1c2], and [1d]*. This failure to align Petitioner’s own analysis with the words of the claim dooms the Petition with respect to claim 1.

Specifically, Petitioner identifies the “server” of element [1b] as the combination of three components: the P-CSCF (proxy call session control function) 206; the I, S-CSCF (interrogating, servicing session control function) 208; and the HSS (home subscriber service) 210. (Pet. at 34-35.) Notably, although Petitioner discusses a home location registry (“HLR”) in its overview of Horvath (Pet. at 33), the HLR is *not* one of the three components that Petitioner associates with the recited “server” when analyzing element [1b]. (See Pet. at 29-46.) This makes sense, because the HLR is completely separate from those three other components, and located within another section of the system entirely. (See Ex. 1004 at Figure 2.)

Despite its treatment of “server” in element [1b], when subsequently discussing the functional elements of that recited “server,” *Petitioner regularly points to the HLR of Horvath, not the components it assigned as the “server” in element [1b]*. For example, element [1c1] then requires the sending mobile phone to send the recipient’s phone number to the “server” (P-CSCF+I,S-CSCF+HSS as defined by Petitioner). But Petitioner never makes that connection.

Instead, Petitioner first asserts—with nothing more than attorney argument—that the messaging format capabilities information (“MFCI”) for a receiving wireless device from *Tsampalis* would have been stored in, at least, the HLR of *Horvath*. (Pet. at 40.) Setting this analytical stretch aside, even if

Petitioner is correct as to this particular combination of features, the claim is *not* met, because the HLR of Horvath is not part of the purported “server” as defined earlier by Petitioner. In other words, even accepting that Petitioner’s fanciful blending of Tsampalis and Horvath has merit, there is still no “server” as recited in the claim.

Petitioner’s subsequent analysis regarding the interplay of Horvath’s HLR and Tsampalis is meaningless for the same reason. For example, Petitioner claims “Horvath’s HLR ‘comprises a database including information associated with a wireless device subscribing to the circuit services network 104,’ which includes ‘service(s) subscribed to by the wireless device 106.’” (Pet. at 42.) But this also fails to meet the claim, since the HLR is not part of the “server” as defined by Petitioner itself.

Petitioner’s alternative argument that Tsampalis’s MFCI would have been stored in HSS 210 of Horvath, (Pet. at 40), is manufactured out of thin air and fails for multiple reasons. First, it is based on Petitioner’s unfounded claim that Horvath’s HSS 210 stores “capability information indicating whether each wireless phone is configured to receive messages through the packet-data network.” (Pet. at 40.) Horvath says no such thing. While Petitioner quotes from Horvath that the HSS 210 stores a profile with “subscription information,” Petitioner’s added assertion that the HSS 210 also stores “information indicating whether each

wireless phone is configured to receive messages through the packet-data network” is unquoted. (*Id.* at 40.) And for good reason: that disclosure appears *nowhere* in Horvath.

Second, the MFCI in Horvath was limited to whether the recipient could receive an *SMS* over an IP network. (Ex. 1004 at [0033].) Horvath’s HSS would not include capability information for message formats like IM, but instead would have been limited to the capabilities for cellular formats MMS, SMS and EMS, to which Horvath is exclusively addressed. Petitioner offers no explanation for why a telecommunications company would allow for the storage of capability information for non-telecom services like IM.

In reality, there is no disclosure in Horvath that the HSS stores subscriber capability information, or any information other than whether or not a subscriber has paid for its cellular service. (*See generally* Ex. 1004.) Petitioner cites paragraphs [0035] and [0044] of Horvath in support, but those paragraphs fail to disclose any of capabilities at all, only location, identification, and “subscription information.” (*E.g. id.* at [0035].)

2. Independent Claim 7

Claim 7 is similar to claim 1 but structured as an independent method claim for a mobile phone to automatically route messages through the most appropriate

network by querying a server to check the recipient's subscription status. (See Ex. 1001 at claim 7.)

As with claim 1, claim 7 recites similar "server"-related steps and functions:

7a1	retrieving, by the sending mobile phone, first information representing a phone number of a first receiving mobile phone from a first message and
7a2	sending the phone number of the first receiving mobile phone to a server;
7b	receiving, by the sending mobile phone, a first response, when the phone number of the first receiving mobile phone is not associated with a subscriber of the PSMS;

Petitioner's discussion of claim 7 merely points back to its claim 1. (Pet. at 65-67.) Thus for the same reasons that the Petition fails with respect to claim 1, the Petition fails as to claim 7 as well.

3. Independent Claims 14

Claim 14 is similar to claim 1 in that it recites a "server" with its related functionality:

14b	at least one server that supports the PSMS;
14c1	wherein: the sending mobile phone retrieves first information representing a phone number of a receiving mobile phone from a first message being composed and
14c2	sends the first information to the at least one server;

14d	the at least one server, in response to receipt of the first information, sends a first response to the sending mobile phone, the receiving mobile phone being associated with a subscriber of the PSMS;
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Petitioner's analysis of these elements merely points back to its analysis for claim 1. (Pet. at 69-73.) Thus for the same reasons that the Petition fails with respect to claim 1, the Petition fails as to claim 14 as well.

4. Independent Claim 20

Claim 20 is similar to claim 1 but structured as an independent method claim. Critically, Petitioner's analysis of claim 20 merely points back to claims 1 and 14, with some minor additional analysis. At the same time, however, claim 20 recites features that are *not* recited within claim 1 or claim 14, and which Petitioner's minor additional analysis completely fails to address.

Specifically, claim 20 recites a single sending phone and single receiving phone. Among other elements, the sending phone first receives an indication that the receiving phone is a subscriber to a packet switched message service (PSMS) and sends a (previously introduced) "first" message via a WLAN and the PSMS:

20b	receiving, by the sending mobile phone, a first response to the sending, wherein the first response indicates that the receiving mobile phone is associated with a subscriber of the PSMS;
-----	--

20c	after the first response is received by the sending mobile phone, sending, by the sending mobile phone, the first message via a wireless local area network (WLAN) and the PSMS; and
-----	--

Claim 20 further recites that *a second message is sent to the same receiving phone*, but is sent via an SMS bearer because the first message was undelivered:

20d	sending, by the sending mobile phone, a second message via an SMS bearer, to the receiving mobile phone, subsequent to the sending mobile phone receiving the first response and based at least in part on the first message being undelivered to the receiving mobile phone;
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In purporting to analyze Element 20[d], the Petition merely points back to Elements 1[d], 14[g], and 14[h]. (Pet. at 78.) None of Petitioner’s analysis of these elements, however, addresses this claim language whatsoever.

First, Element 1[d] merely relates to a single instance in which a response is sent to sending phone from a server, the response indicating that a phone number first receiving mobile phone (among “first” and “second” receiving phones recited in the claim) is not associated with a subscriber of the PSMS. (Ex. 1001 at claim 1.) Element 1[d] thus completely fails to address sending a WLAN/PSMS message and then an SMS message to a *single receiving phone* that is a subscriber to the PSMS, yet for some reason did not receive the first message.

Second, Petitioner’s analysis of Element 14[g] first references its analysis for Element 1[d], which is irrelevant for the reasons just explained above. Petitioner

then provides some limited analysis based on references to Element 1[h] and 1[d]. (Pet. at 70-72.) But Element 1[h] involves sending a PSMS message over WLAN to a “second” receiving mobile phone, not the same “first” receiving mobile phone of Element 1[d]. (Ex. 1001 at claim 1.) So this analysis is again irrelevant.

Third, Petitioner’s analysis of Element 14[h] merely points back to its analysis of Element 1[e]. (Pet. at 72-73.) But Element 1[e] involves sending an SMS message to the “first” receiving mobile phone, which is the intended recipient of *only* an SMS message according to the claim, and never a WLAN/PSMS message as *also* required of the single receiving phone of claim 20. (Ex. 1001, claims 1 and 20.)

In short, none of Petitioner’s references back to earlier claims, nor its limited additional analysis of Element 14[g], ever address all recited elements of claim 20. For this reason, the Petition fails as to claim 20.

C. Apple Establishes No Adequate Motivation to Combine the References in the Manner Recited

1. Apple’s Purported Motivation to Combine Is Nothing More than Sleight of Hand

A POSITA would not have been motivated to combine Horvath with Tsampalis, Kansal, and Dorenbosch as proposed in the Petition. (See Petition, Paper 2 at 21-22.)

It is not enough that references exist in the same general area of technology or even enough that a certain combination of references worked after the fact; there must be an actual motivation to combine, at least some “rational underpinning” beyond “generic ‘reasons’ to combine.” (Ex. 2030 IPR2025-00785, Decision Denying Institution of IPR at 14 (denying institution, in part, for lack of motivation to combine where the reasons for combining were generic and vague).) Nor is a “reasonable likelihood of success” enough to create a motivation to combine. The obviousness inquiry asks whether a POSITA would have been motivated to combine, not whether they could have successfully done so. *Adidas AG v. Nike, Inc.*, 963 F.3d 1355, 1359 (Fed. Cir. 2020); *InTouch Techs., Inc. v. VGO Commc’ns, Inc.*, 751 F.3d 1327, 1352 (Fed. Cir. 2014). A reasonable expectation of success cannot fill the gap left by an absent motivation to combine.

Here, Petitioner’s asserted “motivations” to combine are hindsight solutions in search of non-existent problems. (Pet. at 21-23.) For example, Petitioner states that “a POSITA would have combined Horvath and Tsampalis such that the sender would obtain and use a recipient’s MFCI to enhance users’ messaging experiences and ensure that the format of outgoing messages is compatible with the messaging format capability of the recipients’ device before the message is sent.” (Pet. at 21.) But this was a problem that Horvath already solved, which Petitioner immediately

acknowledges. (*Id.*) But there is no explanation for why a POSITA would want to re-solve the problem using teachings from Tsampalis.

Petitioner's remaining three explanations for motivation to combine are unsupported, conclusory statements. (*Id.* at 21-22 (“Second, a POSITA would have sought to leverage Tsampalis-like MFCI in enhanced messaging formats such as MMS and IM. . . . Third, a POSITA would have been motivated to apply Tsampalis-like MFCI to Horvath's system to advance Horvath's express objectives of reducing ‘unnecessary overhead for the system’ and ‘dynamic optimization of [] resources. Fourth, a POSITA would have found it obvious to combine the teachings of Horvath with Tsampalis because the combination merely involves the application of a known technique to a known system to achieve predictable results.’”))

These generic “reasons” to combine the alleged teachings of all four references lack rational underpinning, particularly because Petitioner does not even identify which teachings of which references are being combined to achieve any particular limitation in the claims.

2. Combining These References in the Manner Petitioner Proposes Is Nonsensical

Even if there were articulated, true motivation to combine generally, which there is not, it would not make sense to combine the references in this way. Apple advances three purported benefits for why a POSITA would have modified

Horvath based on Tsampalis, *i.e.*, (i) to ensure that the format of “messages is compatible with the capabilities of the recipients’ device,” (ii) to permit “more frequent and reliable use of enhanced messaging formats such as MMS and IM” which were not included in Horvath, and (iii) “to advance Horvath's express objections of reducing ‘unnecessary overhead for the system.’” (Pet. at 22.) None of these purported bases withstands scrutiny.

First, A POSITA would not have been motivated to modify Horvath to ensure that the format of the message is compatible with the capabilities of the recipients’ device, because Horvath already performed this function.

In Horvath, once the message transmitted by the sending wireless device reaches the mobile operator network, the SMSC 114 within the mobile operator network determines how the mobile operator network will deliver the SMS to the recipient. (Ex. 1004 at [0045]-[0047] (“If the SMSC 114 determines that the recipient device is registered on the packet data network 102, the SMSC 114 delivers the SMS message to the recipient device through the packet data network 102 If the recipient device is not registered on the packet data network 102, the SMSC 114 delivers the SMS message to the recipient device through the traditional circuit services network.”).)

Petitioner fails to explain why a sender in Horvath would need (or even desire) to obtain the MFCI of the recipient to “ensure that the format of outgoing

messages is compatible with the messaging format capability of the recipients' device," when Horvath already has a decision-making function within SMSC 114 to ensure that the format of outgoing messages is compatible with the messaging format capability of the recipients' device.

Second, Petitioner argues that a POSITA would have combined Tsampalis with Horvath's system to permit "more frequent and reliable use of enhanced messaging formats such as MMS and IM." (Pet. at 21-22.) A POSITA motivated to accomplish that goal could have done so within the existing architecture of Horvath by extending the existing functionality in Horvath's mobile operator network for determining how to deliver an outgoing message to include not only SMS message formats, but also EMS and MMS messages.

Similarly, Petitioner argues that a POSITA would have been motivated to "leverage the Tsampalis like MFCI in Horvath's system" such that the "sending mobile phone utilizes" such "information when determining how to format and deliver a message to a receiving mobile phone." (Pet. at 21-22, 48.) Petitioner's proposed combination makes the leap that a POSITA would have been motivated to relocate Horvath's functionality for deciding how to deliver the message to the recipient from the mobile operator network to the sending wireless device itself. However, the Petition fails to explain why a POSITA would have selected such a radical alteration of Horvath's existing architecture, when a simple extension of

Horvath's teachings would have satisfied the goal of permitting other messaging formats.

Third, the Petitioner's proposed combination of Horvath and Tsampalis would increase overhead, not reduce it. As mentioned above, the sending wireless device in Horvath learns its own capabilities with a single request/response exchange with the mobile operator network. This single request/response exchange need not be repeated every time the sending wireless device desires to send a message to a recipient because, once the sending wireless device learns its own capabilities, it can store that information within the sending wireless device for future use.

Moreover, since Horvath's SMSC 114 (within the mobile operator network) determines how to deliver the SMS message to the recipient, there is no need for the sending wireless device to engage in any further request/response exchanges with the mobile operator network to learn the capabilities of each intended message recipient. By locating that decision-making function within the mobile operator network, Horvath's architecture minimizes traffic between the sending wireless device and the network.

Accordingly, rather than advancing the "express objectives of reducing 'unnecessary overhead for the system,'" (Pet. at 22), the proposed combination would do the opposite, by substantially increasing traffic each time the sender

desires to send a message to a recipient. Indeed, one aspect of Petitioner's proposed "Horvath-Tsampalis-Kansal-Dorenbosch" system involves incorporating Dorenbosch's functionality for maintaining the current status (available/not available) of message recipients. (Pet. at 28 and 55-56 (arguing that Dorenbosch's functionality would have allowed an intended recipient's status to appear available to the sender when the intended recipient "is roaming or temporarily out of service" but will designate the intended recipient's status "as unavailable" when "the number of messages cached by the IM proxy reaches the threshold number").) Because the current status of an intended recipient is not constant, the sender in the proposed "Horvath-Tsampalis-Kansal-Dorenbosch" system would need to retrieve the MFCI of the intended recipient before every message is sent in order to learn the current status of the intended recipient before selecting a delivery format for the message.

Accordingly, again, the proposed system would substantially increase traffic because the sending mobile phone would need to engage in a request/response exchange with the network for every outgoing message, which would have discouraged a POSITA from combining the references as proposed.

For at least the reasons set forth above, the Petition has failed to demonstrate that a POSITA would have modified the asserted references in a manner that

corresponds in any manner to the architecture described and claimed in the '183 patent.

D. Because Petitioner Has Failed to Show Obviousness of Any Independent Claim, It Has Also Failed to Show Obviousness of Any Dependent Claim

The remaining Grounds of the Petition are directed to dependent claims only. As set forth above, however, the Petition has failed with respect to each independent claim. Thus the Petition likewise fails with respect to each dependent claim.

VI. CONCLUSION

For the reasons set forth above, the Petition should be denied institution.

Dated: February 9, 2026

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

This Patent Owner's Preliminary Response consists of 11,716 words, excluding cover page, table of contents, table of authorities, certificate of service, this certificate, or table of exhibits. The brief complies with the type-volume limitation of 14,000 words as mandated in 37 C.F.R. §42.24. In preparing this certificate, counsel has relied on the word count of the word-processing system used to prepare the paper (Microsoft Word).

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CERTIFICATE OF SERVICE

I hereby certify that on February 9, 2026, I caused a true and correct copy of
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