

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC.,
Petitioner

v.

HBCU MESSAGING US LP,
Patent Owner

IPR2025-01486
U.S. Patent No. 8,918,127

PATENT OWNER'S PRELIMINARY RESPONSE

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TABLE OF CONTENTS

I. INTRODUCTION1

II. BACKGROUND1

 A. Technology at Issue1

 B. Challenged Claims5

 C. District Court Case8

III. CITED REFERENCES8

 A. Horvath (Ex. 1004)8

IV. LEVEL OF ORDINARY SKILL IN THE ART22

V. CLAIM CONSTRUCTION23

VI. PETITIONER IS UNLIKELY TO PREVAIL WITH RESPECT TO ANY CHALLENGED CLAIM27

 A. Neither Horvath Nor Tsampalis Disclose Sending a Request to a Server and Receiving a Response from the Server, “the response providing an indication of whether the destination address corresponds to a subscriber of the service”28

 B. Neither Horvath Nor Tsampalis Discloses the Element of “wherein the request sent to the server and the response received from the server do not traverse the cellular core network”30

 1. Horvath Fails to Disclose “wherein the request sent to the server and the response received from the server do not traverse the cellular core network”32

 2. Tsampalis Fails to Disclose “wherein the request sent to the server and the response received from the server do not traverse the cellular core network”34

 C. Petitioner Has Not Met Its Burden of Showing a Negative Claim Limitation in Either Horvath or Tsampalis35

 D. Petitioner Cannot Prevail On the Dependent Claims41

VII. CONCLUSION.....41

TABLE OF AUTHORITIES

Cases

<i>Amgen Inc. v. Hoechst Marion Roussel, Inc.</i> , 314 F.3d 1313 (Fed. Cir. 2003)	23
<i>Cambridge Mobile Telematics, Inc. v. Sfara, Inc.</i> , IPR2024-00952 (P.T.A.B. Dec. 13, 2024)	24
<i>Facebook v. Windy City Innovations, LLC</i> , 973 F.3d 1321 (Fed. Cir. 2020)	39, 40
<i>Google v. Geoscope Technologies PTE. Ltd.</i> , 2024 Pat. App. LEXIS 666, IPR2023-01214 (P.T.A.B. 2024)	36
<i>IBM v. Iancu</i> , 759 F. App'x 1002 (Fed. Cir. 2019)	36
<i>Intel Corporation v. Proxense LLC</i> , IPR2025-00327 (P.T.A.B. June 26, 2025)	8
<i>Microsoft Corp. v. Multi-Tech Sys., Inc.</i> , 357 F.3d 1340 (Fed. Cir. 2004)	26
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005)	26
<i>Snap v. Vaporstream, Inc.</i> , 2019 Pat. App. LEXIS 13226, IPR2018-00398 (P.T.A.B. 2019)	36
<i>Xerox Corp. v. Bytemark, Inc.</i> , IPR2022-00624 (P.T.A.B. August 24, 2022)	39

Regulations

37 C.F.R. § 42.100 (b).	23
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TABLE OF EXHIBITS

Exhibit	Description
2018	District Court Litigation - Complaint filed by Patent Owner on October 7, 2024, in the Western District of Texas
2019	District Court Litigation - First Amended Complaint filed on January 24, 2025
2020	District Court Litigation - September 24, 2025 Order dismissing Green Dot Corporation without prejudice to replead following initial discovery
2021	District Court Litigation - April 9, 2025 Agreed Scheduling Order
2022	District Court Litigation - Apple's Opening Claim Construction Brief filed on September 22, 2025
2023	District Court Litigation - Dkt. 61-2 (Patent Prosecution history U.S. Pat. App. 16/897,161, June 9, 2020, Preliminary Remarks)
2024	Patent Prosecution history U.S. Pat. App. 16/897,161, Sept 16, 2020, Remarks/Arguments
2025	Notice of Allowance for U.S. Pat. App. 16/897,161
2026	USPTO Memorandum issued July 31, 2025, entitled, " <i>Enforcement and Non-Waiver of 37 C.F.R. § 42.104(b)(4) and Permissible Uses of General Knowledge in Inter Partes Reviews</i> "

I. INTRODUCTION

Petitioner Apple, Inc. (“Petitioner”) filed a Petition for *Inter Partes* Review of claims 1-30 of U.S. Patent No. 8,918,127 (“the ‘127 patent”) on August 29, 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.

II. BACKGROUND

A. Technology at Issue

The ‘127 patent resulted from the pioneering efforts of Graham Merrett in the field of messaging services and in particular selection of certain services to enhance the operation of messaging systems. The Inventor has multiple patents in this space, and the ‘127 patent represents just one example of his innovations.

As explained in the patent specification (Ex. 1001, ‘127 patent at 1:29-34), 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). In short, SMS is a cellular technology and is interwoven with foundational cellular standards.

Although SMS is extremely popular, one of its biggest drawbacks was that an SMS message could 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. (Ex. 1001, '127 patent at 1:34-41.)

Within the cellular system, a Short Messaging Service Center (SMSC) is responsible for handling the delivery of SMS messages. 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 1:42-51.)

Several other cellular messaging services acted as extensions to SMS. Enhanced Messaging Service (EMS), which used 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 provided an Internet Protocol (IP) overlay to the existing GSM networks. A multimedia message could contain images, audio clips and videos. (*Id.* at 1:52-62.)

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 such messages. Many then-current MIM services also required users to maintain a persistent connection with the Internet during a chat session. (*Id.* at 2:33-39.)

The inventions of the ‘127 patent address multiple shortcomings 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 4:16-22; 7:18-38; 10:14-29.)

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 11:44-12:27.) Messages received over both of the SMS system and the PSMS system are displayed by the same messaging application. (*Id.* at 9:24-36.)

The '127 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 '127 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 3:40-47.)¹

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

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

situation, the '127 patent teaches that the message may be queued by the server until the recipient device connects to the server. (*Id.* at 4:16-22.)

B. Challenged Claims

Petitioner challenges claims 1-20 of the '127 patent. Given that the asserted prior art fails to disclose every element of the independent claims, as set forth below, Petitioner's arguments with regard to all challenged claims must be rejected.

Claim 1 is a method claim and is reproduced below:

1.pre	A method of providing a messaging service for use in a wireless device of a sender, the method comprising:
1.a.1	receiving, by a message client running on the wireless device of the sender, information associated with a destination address of a wireless device of a recipient,
1.a.2	the message client capable of determining a transmission mode for sending an outgoing message to the wireless device of the recipient,
1.a.3	wherein the wireless device of the sender is capable of sending messages in a plurality of transmission modes comprising a first transmission mode and a second transmission mode;
1.b.1	determining, by the wireless device of the sender, whether the destination address corresponds to a subscriber of a service for receiving the outgoing message via a packet switched bearer
1.b.2	by sending a request via a packet switched wireless local area network (WLAN) base station to a server,
1.b.3	and receiving a response from the server via the packet switched WLAN base station, the response providing an indication of whether the destination address corresponds to a subscriber of the service;

1.c.1	selecting, by the wireless device of the sender, a transmission mode from the plurality of transmission modes,
1.c.2	wherein the wireless device of the sender selects the first transmission mode when the indication corresponds to a subscriber of the service,
1.c.3	and the wireless device of the sender is capable of selecting the second transmission mode when the indication does not correspond to a subscriber of the service;
1.d	sending, by the wireless device of the sender, the outgoing message using the selected transmission mode,
1.e	wherein, when the selected transmission mode is the first transmission mode, the wireless device of the sender sends the outgoing message as one or more Internet protocol (IP) packets to the wireless device of the recipient via the packet switched WLAN base station,
1.f	wherein, when the selected transmission mode is the second transmission mode, the wireless device of the sender sends the outgoing message as a short message service (SMS) message to the wireless device of the recipient using the destination address via a base station that is associated with a cellular core network that is independent of the packet switched WLAN base station, and
1.g	wherein the request sent to the server and the response received from the server do not traverse the cellular core network.

Independent claim 11 recites a similar method:

11.pre	A method of providing a messaging service for use in a wireless device of a sender, the method comprising:
11.a.1	receiving, by a message client running on the wireless device of the sender, information associated with a destination address of a wireless device of a recipient,
11.a.2	the message client capable of determining a transmission mode for sending an outgoing message to the wireless device of the recipient,

11.a.3	wherein the wireless device of the sender is capable of sending messages in a plurality of transmission modes comprising a first transmission mode and a second transmission mode;
11.b.1	determining, by the wireless device of the sender, whether the destination address corresponds to a subscriber of a service for receiving the outgoing message via a packet switched bearer
11.b.2	by sending a request via a packet switched wireless local area network (WLAN) base station to a server,
11.b.3	and receiving a response from the server via the packet switched WLAN base station, the response providing an indication of whether the destination address corresponds to a subscriber of the service;
11.c.1	selecting, by the wireless device of the sender, a transmission mode for sending the outgoing message to the wireless device of the recipient from the plurality of transmission modes,
11.c.2	wherein the wireless device of the sender selects the first transmission mode when the indication corresponds to a subscriber of the service,
11.c.3	and the wireless device of the sender is capable of selecting the second transmission mode when the indication does not correspond to a subscriber of the service;
11.d	wherein the wireless device of the sender is capable of sending, in the first transmission mode, the outgoing message as one or more Internet protocol (IP) packets to the wireless device of the recipient via the packet switched WLAN base station,
11.e	wherein the wireless device of the sender is capable of sending, in the second transmission mode, the outgoing message as a short message service (SMS) message to the wireless device of the recipient using the destination address via a base station that is associated with a cellular core network that is independent of the packet switched WLAN base station, and
11.g	wherein the request sent to the server and the response received from the server do not traverse the cellular core network.

C. District Court Case

On October 07, 2024, Patent Owner filed a Complaint (Ex. 2018, District Court Case Dkt. 1) against Petitioner in the Western District of Texas; and on Jan. 24, 2025 filed a First Amended Complaint (“FAC”) (Ex. 2019, District Court Case Dkt. 32). The Complaint and FAC were originally filed against Apple, Inc. and Green Dot Corporation, but the Court dismissed Green Dot Corporation without prejudice to replead following initial discovery. (Ex. 2020, District Court Case Dkt. 63.)

The District Court litigation has progressed steadily. In keeping with the Scheduling Order, the parties have served preliminary contentions and fully briefed claim construction. (Ex. 2021, District Court Case, Dkt. 49.) The claim construction hearing is scheduled for January 20, 2026. (*Id.* at 2-3.) This case is set for jury trial in July 2027. (*Id.* at 4.)²

III. CITED REFERENCES

A. Horvath (Ex. 1004)

² Although a date is set here, having a date certain for a trial is not a prerequisite for discretionary denial. *See, e.g., Intel Corporation v. Proxense LLC*, IPR2025-00327, Paper 12 at 2 (P.T.A.B. June 26, 2025) (Petitions discretionarily denied due to settled expectations though no trial date scheduled).

Petitioner cites Horvath, EX1004. As explained in Patent Owner's Discretionary Denial Brief, Horvath is cumulative with multiple references that were cited in original prosecution. (Paper No. 7 at 3.) 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 '127 patent.

Petitioners concede 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.

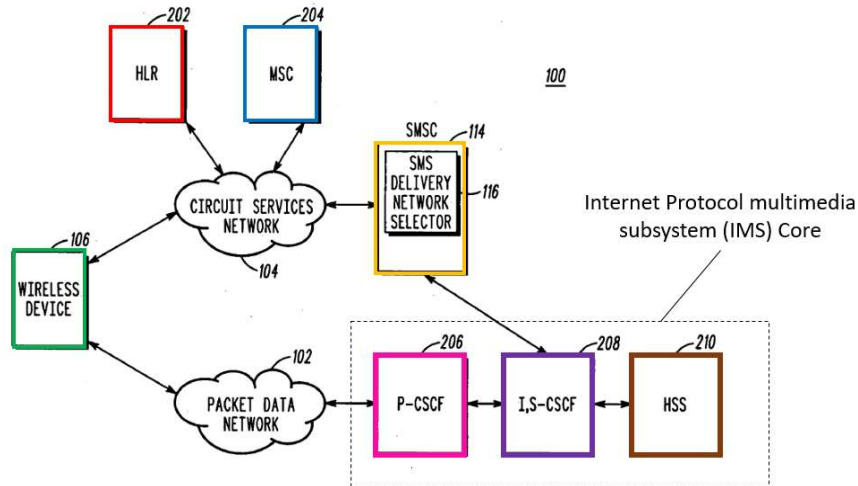
Horvath identifies a problem associated with the conventional transmission of SMS messages, which is that SMS traffic was traditionally transmitted in the same circuit switched networks used by cellular providers to carrying voice traffic:

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, [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. (Ex. 1004, [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. (Ex. 1004, [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.*, [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.*, [0031]-[0032].)



In the Horvath framework, the SMSC 114 (orange box) is directly coupled to the circuit services network 104, and also 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). (Ex. 1004, [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)³ that supports a session internet protocol (“SIP”) network “used for establishing instant messaging, telephone calls, and other real time communications over the Internet.” (*Id.*, [0033]-[0034].)

To send and receive SMS messages via the packet data network 102 in Horvath, the wireless device 106 registers with the S-CSCF component of the I,S-

³ Dotted line in the original.

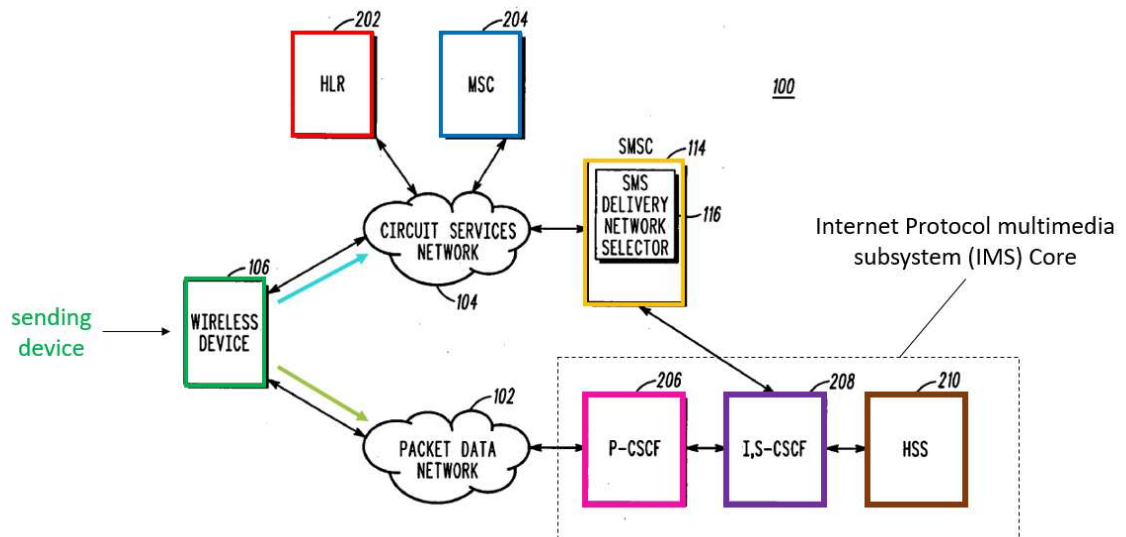
CSCF 208, “When the S-CSCF receives a registration request from the wireless device 106, the S-CSCF contacts the HSS 210 for authentication and authorization of the wireless device 106. Upon being authenticated by the S-CSCF, a security association between the wireless device 106 and the P-CSCF . . . is established.” (Ex. 1004, [0040].)

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. (Ex. 1004, [0040].)

In this manner, each wireless device registered with the IMS core can send and receive SMS messages through the packet data network 102. (Ex. 1004, [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.*, [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. (Ex. 1004, [0039].)

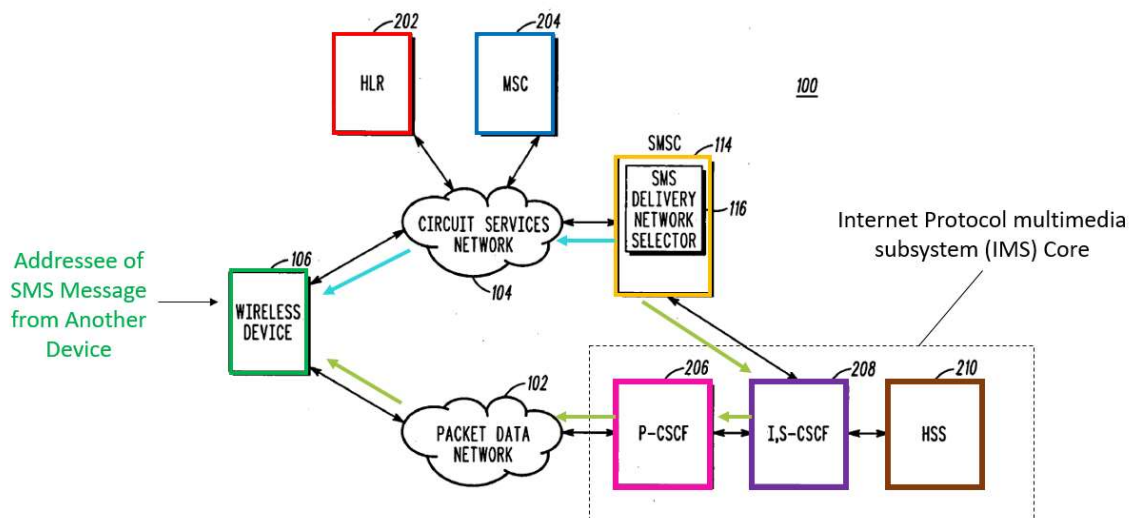
The operation of Horvath is set forth in the reproduction of Horvath's Figure 2 below, also annotated in color for convenience. When the wireless device 106 desires to send an SMS message to another device, device 106 decides whether to send the SMS message via the circuit service network 104 or packet data network 102 by determining if the sending wireless device itself is registered on the packet data network 102.

If the wireless device 106 is registered on the packet data network 102, the wireless device 106 sends the message as a SIP message over the packet data network 102 (over the path is illustrated by the olive green arrow) to HSS 210, which forwards the message to the SMSC 114. If the wireless device 106, is not registered on the packet data network 102, the wireless device 106 transmits the SMS message to SMSC 114 over the traditional circuit services network 104 (over the path illustrated with the turquoise arrow). (Ex. 1004 at [0050].)



Significantly, the sending wireless device 106 decides which network to use based on the capabilities of the sender's device. (See Ex. 1004 at [0050], Fig. 2.) This aspect of Horvath stands in contrast with claim 1 of the '127 patent, where the sending mobile phone selects a transmission mode based on a response to a server query regarding (generally) whether the recipient device is also registered with the same external packet switched messaging system.

Horvath uses 106 to identify both the sending and receiving devices which further indicates the same pathway is followed. In Horvath, upon receiving the SMS message from the sending wireless device 106, the SMSC 114 determines whether to deliver the message to wireless the network using the circuit service network 104 (this path is illustrated with the **turquoise** arrows) or the packet data network 102 (this path is illustrated by the **olive green** arrows).



“[W]hen a SMS message request is received by the SMSC 114, the SMSC 114 first determines if the recipient wireless device 106 is registered on the packet data network 102 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 via the IMS.” (Ex. 1004, [0044].) That path is illustrated by the **olive green** arrows. Conversely, “[i]f 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 [104].” (Ex. 1004, [0047], [0076].) That path is illustrated by the **turquoise** arrows.

Petitioner asserts that, once the message is sent from the sending wireless device to the SMSC, “SMSC 114 includes an ‘SMS delivery network selector 116’ that ‘selects either the packet data network 102 or the circuit services network 104 for delivery of a SMS message’ based on whether the intended recipient of the message is currently registered on the packet data network 102.” (Pet. at 9-10.) This aspect of Horvath stands in contrast with claim 1 of the ’127 patent, where the entity that selects a transmission mode is outside the cellular core network, as set forth within the claims (since the query and response “do not traverse the cellular core network”).

Petitioner Apple, Inc. (“Petitioner”) filed a Petition for *Inter Partes* Review of claims 1-30 of U.S. Patent No. 8,918,127 (“the ‘127 patent”) on August 29, 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.

B. Tsampalis (Ex. 1005)

Petitioner also cites Tsampalis, Ex. 1005. As explained in Patent Owner’s Discretionary Denial Briefing, Petitioner asserted the German equivalent of Tsampalis against Patent Owner in a German Nullity Action for a related German patent, and that German equivalent was cited during prosecution of multiple later U.S. issued patents in the same family as the ‘127 patent. Although initially found unpatentable, the amended claims of the German related patent were upheld as valid by German’s highest court. (Paper No. 7 at 5-6.) Just as in those proceedings, Tsampalis, alone or in combination with the other cited references, also does not teach or suggest the claimed subject matter of the ‘127 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, [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.*, [0003].)

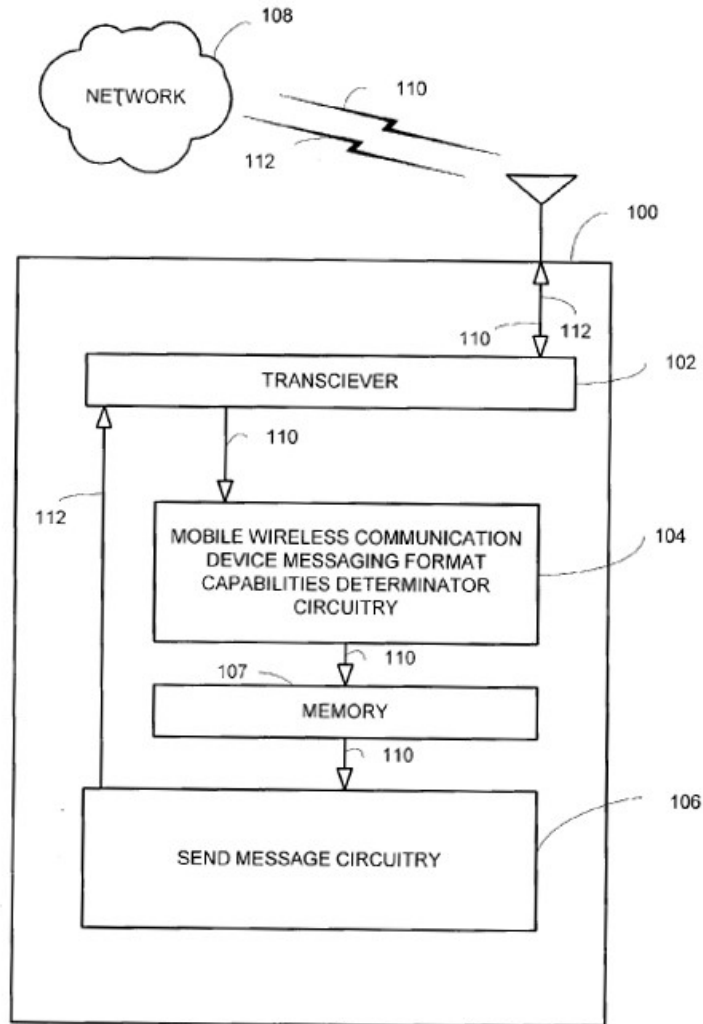
Such networks permitted a mobile device with MMS messaging capability to send an MMS message to a receiving mobile device capable of only receiving SMS messages (but not MMS messages). (*Id.*) On the other hand, if an MMS-capable device sent an MMS message to a device capable of only processing SMS messages, 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 devices 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.

(Ex. 1005, [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.” (Ex. 1005, [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." (Ex. 1005, [0025].)

In turn, the second device returns that 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.*)

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.” (Ex. 1005, [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 phone in the first mobile device 100 (i.e., a phonebook) 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.” (Ex. 1005, [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.*) If the second device is not in the database, the sending phone queries the second phone directly as described above. “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.” (Ex. 1005, [0048].)

One 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.” (Ex. 1005, [0061].) The sending device then sends its message according to the information received from the HLR. (*Id.*)

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 italics:

A person of ordinary skill in the art relating to the subject matter of the ‘127 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. CLAIM CONSTRUCTION

In an *inter partes* review proceeding, “a claim of a patent . . . shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282 (b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100 (b).

The Petition alleges that no claim term requires construction. (Pet. at 5.) This conflicts, however, with Petitioner’s contentions in the parallel district court litigation, in which Petitioner identified multiple terms, including terms from the ‘127 patent, that it asserts require construction. (Ex. 2022, District Court Litigation Dkt. 62 at 3, 10.)

Petitioner’s contradictory positions threaten inconsistent results, potentially because Petitioner may assert (expressly or impliedly) broader constructions to argue invalidity with the Board while advocating narrower constructions to support non-infringement positions in district court. This approach is plainly improper. *See Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1330 (Fed. Cir. 2003) (“It is axiomatic that claims are construed the same way for both invalidity

and infringement.”) Petitioner’s gamesmanship should not be rewarded, especially where as here, Petitioner gave the Board no notice that the District Court will soon be addressing a number of these same claim terms.

In fact, the Board has previously found that such actions run afoul of 37 C.F.R. §42.104(b)(3) because Petitioner failed to explicitly explain its construction positions or adequately justify its contradictory claim construction positions. *See, e.g., Cambridge Mobile Telematics, Inc. v. Sfara, Inc.*, IPR2024-00952, Paper 12 (P.T.A.B. Dec. 13, 2024) (informative) (denial under §42.104(b)(3) for using contradictory constructions in Petitioner and District Court regarding means-plus-function claims). The Board may deny the Petition here for the same reasons.

Contrary to Petitioner, Patent Owner believes that at least one term being construed by the District Court requires construction: cellular core network. Patent Owner asserts here the identical construction it has proposed in the parallel district court litigation: “One or more entities responsible for: maintaining a database of subscriber information for a cellular network, for example, a home location register (HLR) and/or a home subscriber server (HSS); providing access to a short message service center (SMSC) or multimedia message (MMS) server; and providing Internet access to one or more mobile devices via at least mobile operator base stations.”

This proposed construction is drawn directly from the Inventor's own lexicography during prosecution of later applications in the same family. Specifically, in a related subsequent application, U.S. Pat. App. No. 16/897,161, a child of the same parent PCT application PCT/AU2008/001043, the patentee expressly defined "cellular core network" as Patent Owner does here:

Referring again to FIG. 1, a core network includes one or more entities responsible for: maintaining a database of subscriber information for a cellular network, for example, a home location register (HLR) and/or a home subscriber server (HSS); providing access to a short message service center (SMSC) or multimedia message (MMS) server; and providing Internet access to one or more mobile devices via at least mobile operator base stations.

(Ex. 2023, District Court Litigation Dkt. 61-2 at 3 (Patent Prosecution history U.S. Pat. App. 16/897,161, June 9, 2020, Preliminary Remarks at 3).)

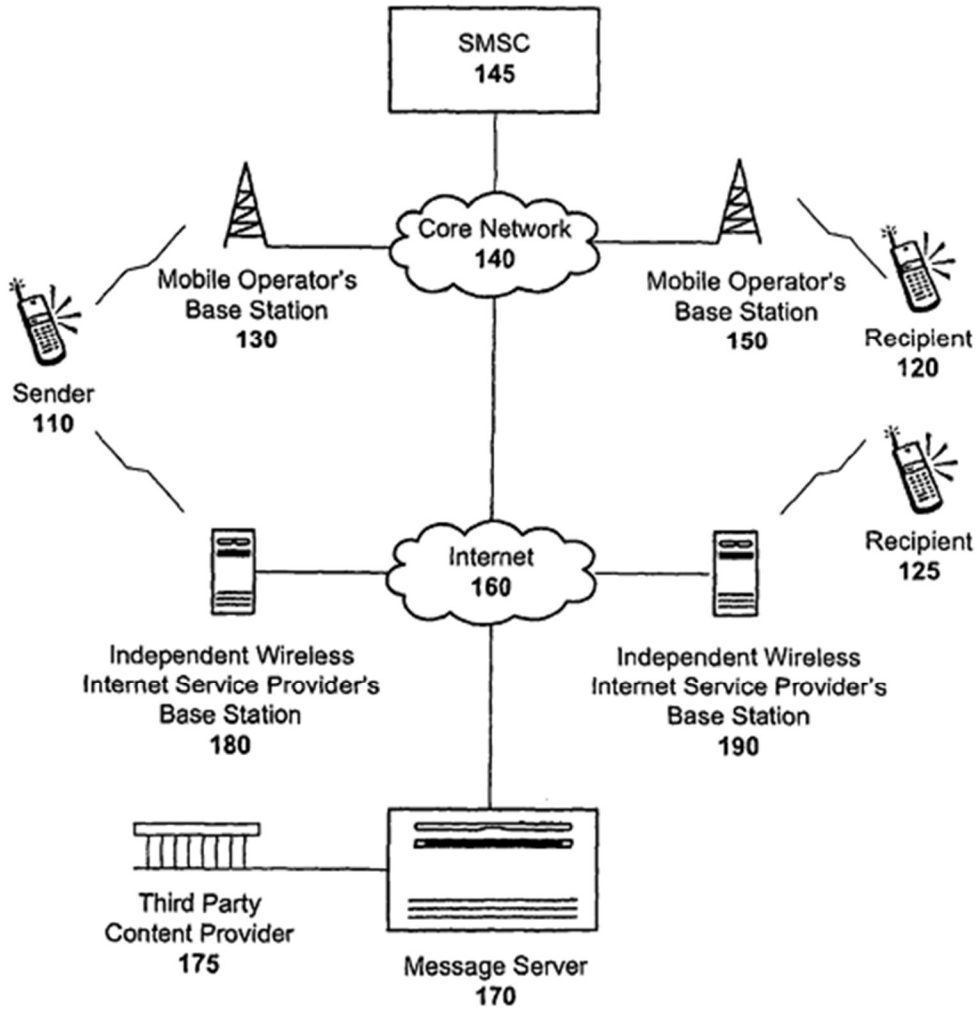
This claim term and Inventor lexicography was argued by the Applicant and accepted by the Examiner during prosecution. Specifically, in response to a non-final rejection, the patentee argued that the prior art asserted by the Examiner was not invalidating because certain components cited in the prior art resided within the cellular core network. (Ex. 2024, Patent Prosecution history U.S. Pat. App. 16/897,161, Sept 16, 2020, Remarks/Arguments at 26.) The Examiner subsequently issued Notice of Allowance. (Ex. 2025, Notice of Allowance.)

The Inventor's own definition of "cellular core network" should be adopted here. It is fundamental that an inventor may act as his own lexicographer. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) ("[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs.")

This principle holds when the definition is set forth in a subsequent application. *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004). In *Microsoft*, the Federal Circuit affirmed a district court's claim construction where the lower court relied on, in part, an applicant's statements made in a subsequent related application. 357 F.3d at 1350. The Federal Circuit explained the relevance of the subsequent application for purposes of claim construction: "Any statement of the patentee in the prosecution of a related application as to the scope of the invention would be relevant to claim construction, and the relevance of the statement made in this instance is enhanced by the fact that it was made in an official proceeding in which the patentee had every incentive to exercise care in characterizing the scope of its invention." *Id.* at 1350.

The specification of the '127 patent further supports the Inventor's explicit definition. For instance, Figure 1 provides a graphical depiction of the cellular

core network showing the three components from that definition: a database of subscriber information, access to a short message service center (SMSC) or multimedia message server (MMS), and internet access.



(Ex. 1001, '127 patent at Fig. 1.)

Patent Owner reserves the right to propose additional constructions of the claims should *inter partes* review be instituted.

VI. PETITIONER IS UNLIKELY TO PREVAIL WITH RESPECT TO ANY CHALLENGED CLAIM

For each claim, Petitioner has identified the same grounds for invalidity, namely the combination of Horvath and Tsampalis. Contrary to Petitioner's assertions, however, even the combination of Horvath and Tsampalis fails to teach every element of each independent claim. As such, Petitioner cannot show that the combination of the two references would result in the patent claims being unpatentable.

A. Neither Horvath Nor Tsampalis Disclose Sending a Request to a Server and Receiving a Response from the Server, “the response providing an indication of whether the destination address corresponds to a subscriber of the service”

Both independent claims of the '127 patent require that the sending wireless device send a message to a server and receive from the server an indication of whether the destination address (i.e. the address of the message recipient) corresponds to a subscriber of the service. (Ex. 1001, '127 patent at 11:55-58.)

Petitioner asserts that this limitation is disclosed in the prior art in three possible ways: (1) determining from the recipient's message format capabilities whether the recipient can process MMS messages, (2) determining from the recipient's message format capabilities whether the recipient can process IM messages, and (3) determining from registration or presence information whether the recipient is available on a packet-based SMS or IM service. (Pet. at 42.) All of these arguments fail.

The first two ways of meeting this limitation are generally directed to determining the recipient's message format capabilities, but ***not in the manner the actual claim limitation calls for***. The claim limitation specifically seeks a determination of “whether the destination address corresponds to a subscriber of a service for receiving the outgoing message via a packet switched bearer.” (Ex. 1001, ‘127 patent at 11:55-58.) In contrast, Petitioner's first two purported means of satisfying this limitation do not look at subscription information at all.

Recognizing that the asserted prior art fails to actually disclose the claim element, Petitioner asserts that it “would have been obvious” in its options 1 and 2 to the limitation as actually recited. (Pet. at 44, 46 and 49.) This argument reveals the truth: that ***neither Horvath nor Tsampalis, either alone or in combination, actually discloses*** “whether the destination address” corresponds to a subscriber of the service, and that this is accomplished via a request “to a server” and a response “from the server.”

As to the third method asserted to disclose claim limitation—determining from registration or presence information whether the recipient is available on a packet-based SMS or IM service—here again neither Horvath nor Tsampalis discloses this in the way claimed in the ‘127 patent, specifically, by receiving a response from the server, “the response providing an indication of whether the

destination address corresponds to a subscriber of the service.” (Ex. 1001 at claims 1, 11.)

Specifically, again recognizing that the asserted prior art fails to actually disclose the claim element, Petitioner asserts that it “would have found it obvious to configure the sender device” to perform the limitation as actually recited. (Pet. at 50.) This argument again reveals that *neither Horvath nor Tsampalis, alone or in combination, actually discloses* “whether the destination address” corresponds to a subscriber of the service, and that this is accomplished via a request “to a server” and a response “from the server.”

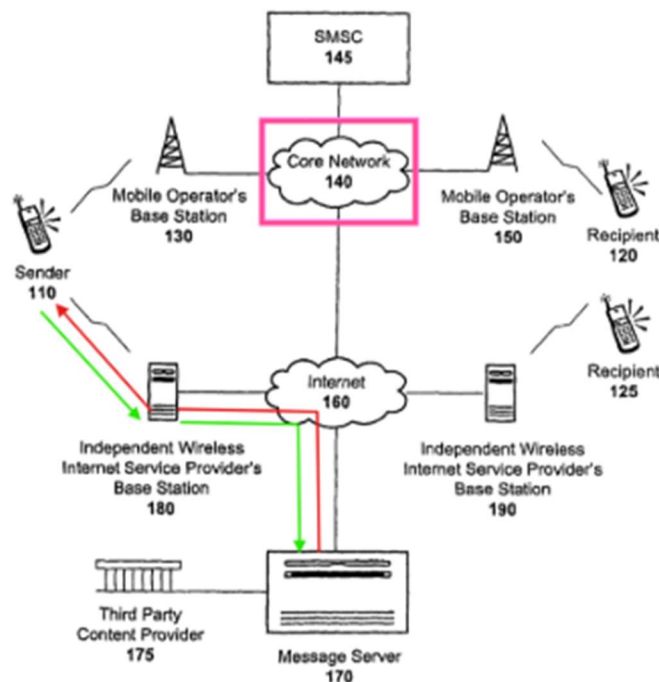
B. Neither Horath Nor Tsampalis Discloses the Element of “wherein the request sent to the server and the response received from the server do not traverse the cellular core network”

Claims 1 and 11 each recite that “the request sent to the server and the response received from the server do not traverse the cellular core network.” (Ex. 1001 at 12:20-22, 13:44-46.) Contrary to Petitioner’s argument, neither Horvath nor Tsampalis disclose this limitation. This is clear from Petitioner’s repeated resorts to the phrase, “a POSITA would have understood . . .” without pointing to any actual disclosures from references themselves. (*See, e.g.*, Pet. at 57, 59, 62.)

As Petitioner appears to recognize (*see* Pet. at 61-62), the cellular core network is the central, high-speed backbone of a cellular telecommunications system that manages user data, handles voice and data traffic, and connects the

access network to other networks, such as the internet. (See, e.g., Ex. 1001 at Fig. 1, Fig. 3, 2:18-22.) As set forth above, the Inventor similarly defined the term “cellular core network” but in more detail in subsequent prosecution of a related application, just as Patent Owner proposes here.

This again comports with the specification, for example Figure 1, which demonstrates that the recited “request” and “response” do not traverse the cellular core network. The figure below is an annotated version of Figure 1 of the ‘127 patent and illustrates an example of the aspects of claim 1.



Referring to the diagram above, in an example of the method of claim 1, the sender 110 sends a request that follows the path shown in green lines through a WLAN base station 180 (blue box), for example a WiFi access point in the

sender's home. The request goes through the Internet 160 before reaching the message server 170 (purple box). (Ex. 1001 at Fig. 1, 5:29-36.)

The message server 170 provides a response that follows the path shown in the red lines from the server 170, back through the Internet 160 and the WLAN base station 180 used to originally send the request, and then from there back to the sender 110. (Ex. 1001 at Fig. 1, 5:29-51.) As shown, the path of the request (green lines) and the path of the response (red lines) *do not traverse the cellular core network 140* (pink box).

1. Horvath Fails to Disclose “wherein the request sent to the server and the response received from the server do not traverse the cellular core network”

Petitioner argues with respect to Horvath that a POSITA “would understand” the request to the server and response from the server can be transmitted outside the cellular core network. (Pet. at 62.)

But Horvath cannot provide any such understanding to a POSITA for the simple reason that Horvath fails to disclose sending *any* request to a server or receiving *any* response from the server, regardless of whether the request and response are sent within or outside the cellular core network. Instead, in Horvath, each sending device queries itself to determine whether it can send on the packet network. (Ex. 1004 at [0007].) Thus, a POSITA can learn *absolutely nothing*

from Horvath about sending a request to a server or receiving a response from the server.

Just like the Petition itself, Petitioner’s expert fails to provide any explanation of how a POSITA can discern this element from Horvath other than repeating exactly—word for word—what the Petition says. Petitioner’s expert, whose disclosure merely parrots the petition and other nonasserted prior art, does nothing to explain what would have been obvious. But Petitioner’s expert cannot simply fill in the gap of a missing claim limitation in the prior art. (Ex. 2026, *see generally* USPTO Memorandum issued July 31, 2025, entitled, “*Enforcement and Non-Waiver of 37 C.F.R. § 42.104(b)(4) and Permissible Uses of General Knowledge in Inter Partes Reviews*”).⁴

More specifically, as set forth above, in Horvath, the sending wireless device 106 decides which network to use ***based on its own capabilities***. (*E.g.* Ex. 1004 at [0007] (“The method comprises determining, by the wireless device, whether it is currently registered with a registrar associated with a session initiation protocol

⁴ It is notable that the vast majority of Petitioner’s expert’s declaration is a verbatim repetition of the Petition. It thus provides no actual independent opinions, but instead parrots the same attorney arguments found in the Petition itself.)

network for communicating over a packet data network and a circuit services network.”.) If it is capable of sending on the packet network as opposed to the circuit switched network, it does so. (*Id.* at [0007]-[0008].) In short, there is no request or response sent to or from the server that would meet the requirements of the claim language. Moreover, any actual messages sent (which is separate from the recited “request” and “response”) absolutely traverse the core network since Horvath only addresses the sending and receipt of SMS messages. (*See* Ex. 1004, [0047], [0076].)

2. Tsampalis Fails to Disclose “wherein the request sent to the server and the response received from the server do not traverse the cellular core network”

Tsampalis provides even less direction about sending and receiving a request and response from a server. As set forth above, in its primary embodiments Tsampalis fails to disclose sending *any* request or receiving any response from a server. Instead, the sending wireless device in Tsampalis directly queries the receiving wireless device, not the server. (*See, e.g.*, Ex. 1005 at ¶ 35.) Thus, Tsampalis does not teach sending any “request” or receiving any “response” from a *server*, let alone sending and receiving the recited request and response without traversing the cellular core network.

Tsampalis describes an alternative embodiment where, “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]).

As explained above, however, a home location register (HLR) is clearly part of the recited “cellular core network,” which the recited request and response **do not traverse**. The Petition completely fails to address this issue, most likely because Petitioner inexplicably chooses to ignore both parties proposed constructions from the ongoing district court action. Thus Petitioner simply ignores that Tsampalis—where it discloses querying a server at all—discloses sending the claimed response and receiving the claimed request via the cellular core network **in direct contrast to independent claims 1 and 11**.

C. Petitioner Has Not Met Its Burden of Showing a Negative Claim Limitation in Either Horvath or Tsampalis

Moreover, this final element of both claims 1 and 11 is a negative limitation requiring that “the request sent to the server and the response received from the server **do not** traverse the cellular core network.” This creates additional burden on the Petitioner, which it also fails to meet.

To satisfy its burden, Petitioner must prove that the relied-on references **affirmatively** teach or suggest that the request sent to the server and the response received from the server “do not traverse the cellular core network.” This burden

cannot be satisfied if the references are merely silent with respect to the limitation.

As explained in *IBM v. Iancu*:

To begin with, even if the Board were correct that Mellmer is “silent” about the content of the accessCard, that characterization would not alone support a finding that there was no user authentication action in this scenario if, as appears, the Board meant that it simply could not tell one way or the other whether the accessCard contains credentials. Silence in that sense would not by itself suffice for the Petitioner to meet its burden to prove, by a preponderance of the evidence, that there was no user authentication action in this scenario. See 35 U.S.C. § 316(e). Nor would that burden be met merely by adding a finding that IBM did not prove the opposite, i.e., a finding of “the absence of sufficient evidence showing the provision or validation of a set credentials at the partner site” in this scenario.

IBM v. Iancu, 759 F. App'x 1002, 1011 (Fed. Cir. 2019) (non-precedential); *see also, Snap v. Vaporstream, Inc.*, 2019 Pat. App. LEXIS 13226, IPR2018-00398, Paper #36 (P.T.A.B. 2019) (routine opinion) (citing *IBM* and stating “Petitioner’s position in this proceeding is that Wren teaches the separation of header information and message content because there is no message content in Figure 9A. Wren’s silence as to what the “New Movie” text represents and where it originated is insufficient for Petitioner to prove that it is not message content”); *Google v. Geoscope Technologies PTE. Ltd.*, 2024 Pat. App. LEXIS 666, IPR2023-01214, Paper #12 (P.T.A.B. 2024) (routine opinion) (citing *IBM* and

stating “Petitioner bears the burden of demonstrating a reasonable likelihood of prevailing in demonstrating that Almgren discloses or teaches all the claim limitations at issue, and, specifically, the burden extends to negative limitations.”)

The Petitioner has not come close to meeting its burden of demonstrating that the relied-on references affirmatively teach or suggest that the request sent to the server and the response received from the server “do not traverse the cellular core network.” Indeed, the totality of the analysis set forth in the Petition is as follows:

Horvath-Tsampalis renders obvious [1g]. APPLE-1003, ¶88. As discussed above, the request sent to the server and the response received from the server are transmitted via the packet data network (e.g., “an 802.11 network” which is Wi-Fi) by default to unburden the traditional circuit services network, and thus a POSITA would have understood and found obvious that neither the request nor the response traverse the cellular core network (e.g., the circuit services network 104) since the Wi-Fi network and its connection to the Internet are not part of the cellular core network. APPLE-1004, [0021], [0024], [0034], [0039] (“IS-41 based circuit network 104...Other networks such as a GSM map circuit network”), [0050], FIGS. 1, 2; supra, §IV.A.1(c), §IV.A.2, Analyses of [1b2]-[1b3] and [1f]; APPLE-1003, ¶88 (APPLE-1009, 1 (differentiating “GSM SMS text messaging and Internet Protocol (IP) based communication”), 2 (“Registration with the registration server will allow the possibility or option of delivering the message via an IP based route ... If the IP

based route is not available, conventional GSM delivery of an SMS message... is attempted.”), 4 (“GSM – Global System Mobile”).

Petition, 61-62 (emphasis added).

(Pet. at 61-62.)

This argument is deficient on multiple levels. First, it does not follow from the fact that “the request sent to the server and the response received from the server are transmitted via the packet data network” that the request/response do not traverse a cellular core network after being transmitted via that network.

For example, in Horvath, all messages transmitted via Horvath’s packet network 102 also traverse Horvath’s “IMS Core” which includes HSS 210—an element expressly defined in the intrinsic record as being part of a cellular core network. (Ex. 1004 at Fig. 2, [0033]-[0034].) Likewise, Tsampalis (where it describes a request at all) expressly describes querying a home location register, which is part of the recited cellular core network.

It was Petitioner’s burden to demonstrate that its cited references affirmatively teach or suggest that the request sent to the server and the response received from the server do *not* traverse the cellular core network at any point along their transmission paths. The Petition fails to meet this burden.

Second, without any explanation, the Petition attempts to equate Horvath’s circuit services network 104 *alone* with recited the cellular core network.

(Petition, 62 (“a POSITA would have understood and found obvious that neither

the request nor the response traverse the cellular core network (e.g., the circuit services network 104) . . .”)) However, neither the Petition nor Petitioner’s declarant provide any explanation why “the circuit services network 104” is the entirety of the cellular core network within the context of Horvath. (See, Ex. 1003, Expert Declaration at ¶81 (repeating verbatim analysis of Element [1g] from Petition without further explanation).)

Notably, this obvious parroting by the expert means the declaration is entitled to little if any weight. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15-17 (P.T.A.B. August 24, 2022) (designated precedential) (according “little weight” to declaration testimony that contains a verbatim restatement of a petition’s conclusory assertions without additional supporting evidence or reasoning). The Petition’s extensive reliance on expert testimony that is mostly a verbatim restatement of the Petition is a further factor that favors denial of institution. *See also, Facebook v. Windy City Innovations, LLC*, 973 F.3d 1321, 1340-41 (Fed. Cir. 2020) (affirming the Board’s holding that claim was not unpatentable when “the Board considered Facebook’s expert’s testimony but determined that it did not add materially to Petitioner’s unpersuasive attorney argument . . . because it merely repeated Petitioner’s argument, nearly verbatim, without citation to the basis for his testimony.”)

Setting the (lack of) relevance of the expert's declaration aside, both Petitioner and its declarant fail to cite any support for its conclusory assertion that Horvath's circuit services network 104—and that element alone—constitutes a cellular core network. This unsupported assertion is therefore entitled to no weight. *Facebook*, F.3d at 1340-41.

Third, the Petition provides no reason why a POSITA attempting to combine Horvath and Tsampalis would even consider designing a system where the claimed request and response do not traverse a cellular core network. Both Horvath and Tsampalis are cellular-based systems which transmit either SMS messages via a cellular core network (in the case of Horvath, regardless of whether the pathway is packet or circuit switched) or SMS/MMS messages via a cellular core network (in the case of Tsampalis.) Given the focus of both references on the transmission of cellular-format messages, the Petition fails to provide a coherent rationale why a POSITA combining such systems would have been motivated to route the claimed request and response along paths that did *not* traverse the cellular core network.

In short, neither Horvath nor Tsampalis actually discloses sending a request to the server or receiving a response from the server without traversing the cellular core network. Both actually teach away from the claimed invention. Nothing besides Petitioner's wishes (and the parroting of its expert) supports the notion that a POSITA would have found obvious from these references, either alone or in

combination, sending the claimed request and receiving the claimed response without traversing the cellular core network.

D. Petitioner Cannot Prevail On the Dependent Claims

Horvath and Tsampalis, alone or in combination, do not render any of the independent claims of the '127 patent unpatentable. Since each of the dependent claims includes all of the limitations of one independent claim, the dependent claims of the '127 patent are also not unpatentable in view of Horvath and Tsampalis.

VII. CONCLUSION

Pursuant to 35 U.S.C. § 314, Patent Owner respectfully requests that the Board refuse to institute *inter partes* review for the reasons stated herein.

Dated: December 9, 2025

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

This Patent Owner's Preliminary Response consists of 8,449 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).

/ Timothy Devlin /
Timothy Devlin

CERTIFICATE OF SERVICE

I hereby certify that on December 9, 2025, I caused a true and correct copy of **PATENT OWNER’S PRELIMINARY RESPONSE** to be served via electronic mail on the following counsel for Petitioner:

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