UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIKTOK INC..

Petitioner,

v.

CELLSPIN SOFT, INC.,

Patent Owner

IPR2024-00768

U.S. Patent No. 11,234,121 B2

Before GREGG I. ANDERSON, CYNTHIA M. HARDMAN, and MICHAEL A. VALEK, *Administrative Patent Judges.*

PATENT OWNER SUR-REPLY

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Research Corp. v. Microsoft Corp.,
627 F.3d 859 (Fed. Cir. 2010) 24

Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.,
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TABLE OF EXHIBITS

Number	Description
2001	Declaration of Pavan M. Gajendragad
2002	Petitioner's District Court Disclosures
2003	Cohen
2004	Harrison
2005	Joint Claim Construction Statement
2006	2007 CCNA Cisco Certified Network Association Study Guide
2007	WAPARCH
2008	MMS 1.0 Specification Excerpts
2009	IrDA - OBEX Version 1.3
2010	Book Excerpts
2011	'030 File Wrapper
2012	Book Excerpts
2013	'766 File Wrapper
2014	'121 Patent Notice of Allowance
2015	'381 Patent Notice of Allowance
2016	2003 Bluetooth Specification, Version 1.1
2017	Website Excerpts
2018	MIT Article
2019	Wikipedia Page
2020	Oracle Document

2021	Wikipedia Page
2022	Second Declaration of Pavan M. Gajendragad
2023	www.bluez.org/bluetooth-21-devices/
2024	https://everymac.com/systems/apple/iphone/iphone-faq/iphone-bluetooth-support-by-model.html
2025	www.gsmarena.com/apple_iphone_3g-2424.php
2026	2006 Cisco IOS WAP Gateway document, at page 2 figure 1

I. INTRODUCTION

The Reply filed by Petitioner TikTok fails to overcome the numerous defects as identified in Patent Owner's Response. Accordingly, Patent Owner once again requests that the Board hold that the Challenged Claims are patentable over the art cited by the Petitioner.

II. ARGUMENT

A. The District Court Claim Construction Facts Are Undisputed and Accurately Recounted in Patent Owner's Response

The record below is not in dispute and, despite Petitioner's complaints, the claim construction synopsis provided by Patent Owner is accurate. First, Petitioner acknowledges the fact that it is seeking two different claim constructions in two different forums under same *Phillips* standard. The only "dispute" here centers on the math underlying Petitioner's and Patent Owner's views of what constitutes an individual contested claim term.

In any event, the District Court ruled on the stay well *after* the filing of the Patent Owner Response in the instant matter, and it has zero effect on the agreed-to terms via the normal Local Patent Rule disclosure procedure. At the end of the day, of course, *consistency must still apply*. Moreover, before the Motion to Stay was granted, Patent Owner Cellspin filed its Opening Claim Construction Brief in the District Court and sent all the material and exhibits to the technical expert appointed in the case.

In a decision newly designated as "informative" by the USPTO, the PTAB provided important guidance on the procedural requirements for IPR Petitions and, in particular, it emphasized the need for *consistency between IPR proceedings and parallel litigation. See Cambridge Mobile Telematics, Inc. v. Sfara, Inc.*, IPR2024-00952, Paper 12 (P.T.A.B. Dec. 13, 2024). In its decision, the Board exercised discretion to deny the Petition, and the very same result should occur in the instant action.

B. Unlike Those of Petitioner, the Claim Construction Positions of the Patent Owner Remain Consistent

Petitioner offers no reason to deviate from the definitions it has previously suggested for a number of terms, not to mention those for which it has previously agreed to in the District Court. Of course, "[c]laim terms must be construed the same way for both invalidity and infringement." *Amgen Inc. v. Hoechst Marion Roussel, Inc.,* 314 F.3d 1313, 1330 (Fed. Cir. 2003); *see also Amazon.com, Inc. v. Barnesandnoble.com, Inc.,* 239 F.3d 1343, 1351 (Fed. Cir. 2001) ("A patent may not, like a nose of wax, be twisted one way to avoid anticipation and another to find infringement"). As such, it should be held to answer for the fact that it has repeatedly changed its positions, and has taken inconsistent positions.

C. Mr. Gajendragad

Petitioner points out that Mr. Gajendragad was mistakenly identified as "Dr. Gajendragad" by Patent Owner. Of course, Mr. Gajendragad readily confirmed in

his deposition that he possesses a Master's degree – not a doctoral degree – and acknowledged this as an honest typographical drafting mistake. This fact is simple noise and does not have any bearing on the merits.

Petitioner further makes much of the fact that Mr. Gajendragad is an acquaintance of the named inventor of the challenged patents. While this is obviously true and readily admitted, it is likewise irrelevant to the merits. Plainly, the experience of Mr. Gajendragad speaks for itself, and his opinions are set forth with specificity and subject to cross examination. It is telling here that Petitioner failed to elicit any testimony from Mr. Gajendragad which contradicts or undermines his opinions.

Of course, every statement from Mr. Gajendragad is backed by solid evidence and exhibits. None of the statements are without supporting evidence or direct experience with the underlying technologies and chipset testing. The same cannot be said for Petitioner expert, who has himself abandoned his original theories and has come up with new theories in the reply brief.

D. Ground One: Hiroishi in view of Kahn, Endsley, and Bluetooth Fails

1. Pairing was optional in Bluetooth as of 2007, and the Bluetooth 2.1 Specification was non-enabled prior art as of December 2007

By way of its Reply, Petitioner fails to provide any rebuttal to the *Raytheon Technologies Corp. v. General Electric Co.* (2021) Bluetooth 2.1 Specification

enablement issue as raised by Patent Owner. Of course, Petitioner has not, and cannot, make a showing that *any* device had actually implemented or enabled the relevant portions of the Bluetooth 2.1 Specification before the December 2007 priority date. This is unsurprising, since no such devices existed. *See* Exhibit 2023 (available at: www.bluez.org/bluetooth-21-devices/). *See* Second Gajendragad [Exh. 2022] at ¶ 14.

The established priority date for the Challenged Claims is December 2007. The Bluetooth 2.1 Specification was released in July 2007, yet as of August 2008, "no Bluetooth 2.1 device made it to market." While some devices had Bluetooth 2.1 capable chips in August 2008, the host stacks still ran Bluetooth 2.0, meaning manufacturers had not yet implemented Secure Simple Pairing features. *See* Exhibit 2023. Even the most expensive phone released in July 2008 (the iPhone 3G), only supported Bluetooth 2.0 with EDR – not Bluetooth 2.1. *See* Exhibit 2024 (available at: https://everymac.com/systems/apple/iphone/iphone-faq/iphone-bluetooth-support-by-model.html); *see also* Exhibit 2025 (available at: www.gsmarena.com/apple_iphone_3g-2424.php). *See* Second Gajendragad [Exh. 2022] at ¶ 15. As such, the Bluetooth 2.1 Specification should be excluded as **non-enabled prior art.**

This implementation delay demonstrates that merely defining a new technology standard does not make it immediately functional or enabled for

practical use. This aligns with *Raytheon Technologies Corp. v. General Electric Co.,* 993 F.3d 1374 (Fed. Cir. 2021) (non-enabled prior art cannot itself establish obviousness). If critical materials are missing, the reference fails enablement, rendering it inapplicable for an obviousness analysis. Here, there were no devices in December of 2007 that implemented the Bluetooth 2.1 Specification, and Petitioner has not otherwise shown the Specification to have been enabled.

Similarly, the mere fact that the prior art may be modified in the manner suggested does not make the modification obvious unless the prior art suggested the desirability of the modification. *See In re Gordon,* 733 F.2d 900, 902 (Fed. Cir. 1984). Applying this to Bluetooth 2.1, the mere presence of thousands of theoretical configurations in a standard does not mean each one was enabled or desirable, and the fact that manufacturers required a full year to implement Bluetooth 2.1 features suggests that the specification was not enabling upon release in July 2007.

Furthermore, the text in the Bluetooth 2.1 Specification for Security Mode 4 (TTI-1019, 1273, 1286) as relied upon by Petitioner actually says as follows (*see* Second Gajendragad [Exh. 2022] at ¶ 16):

> When both devices support Secure Simple Pairing, GAP shall default to requiring an unauthenticated link key and enabling encryption.

First, Petitioner fails to realize that in Bluetooth there are many types of pairings: *Secure Simple Pairing, Simple Pairing, LMP-Pairing, and Pairing*. Not only is pairing optional, the type of pairing is also itself optional. *See* TTI 1019, page 10, 20, 25, 26 (*see* Second Gajendragad [Exh. 2022] at ¶ 17):

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Neither Pairing or Secure Simple Pairing is a default in Bluetooth 2.1, and Petitioner has not provided any evidence for how or why a POSITA would select any of them. Again, the Reply simply focuses on Secure Simple Paring, without recognizing that there are many kinds of pairing in the Bluetooth 2.1 Specification. *See* Second Gajendragad [Exh. 2022] at ¶ 18.

Second, the conditional "when" (above) means that there are cases where both devices do NOT support Secure Simple Pairing, and Petitioner makes no showing that any device in the cited art supported Secure Simple Pairing (or even

Pairing). Indeed, none of the words "pairing," "pair," or "paired" even exist in the cited art. Even today it is a well-known fact that NOT all Bluetooth devices or chips support Secure Simple Pairing or Pairing, because there are number of use cases that don't require it (*e.g.,* field sensors (temperature, location, pressure), advertising beacons, Bluetooth broadcasting, toys, etc.). *See* Second Gajendragad [Exh. 2022] at ¶ 19.

Third, the phrase "shall default" (above) is calling for "unauthenticated" and only encryption, and that too only for Secure Simple Pairing, not every kind of pairing. *See* Second Gajendragad [Exh. 2022] at ¶ 20.

Petitioner's Reply identifies "prevention of eavesdropping, as a motivation to perform Secure Simple Pairing." However, and as pointed out by Patent Owner, the prevention of eavesdropping can be readily achieved by just enabling encryption. As such, the additional step of Secure Simple Pairing is not reasonable or required. *See* Second Gajendragad [Exh. 2022] at ¶ 21.

Even the US NIST recommendation document that came out almost one year after the priority date ONLY calls for using Security Mode 4 and the "shall default" in Security Mode 4 is still "unauthenticated." First, Petitioner cannot reply on the NIST recommendation because it is NOT prior art. Second, even if it were, NIST is only calling for a Security Mode 4 "shall default" to encryption –

NOT Authentication, Authorization, or Pairing. *See* Second Gajendragad [Exh. 2022] at ¶ 22.

Even though none of the terms "pairing," "pair," or "paired" appear in Hiroshi, Kahn, Takahashi, Endsley, and/or Fineberg, Petitioner asserts that their connections are Paired. Of course, this is mere conjecture with zero supporting evidence. *See* Second Gajendragad [Exh. 2022] at ¶ 23.

Further, the Petion at 35 (of IPR2024-00768) wrongly asserts, without any evidence, the "a POSITA would have understood and immediately envisaged that camera 50 and mobile phone 40 are 'paired.'" Likewise, the Petion at 33 (of IPR2024-00767) wrongly asserts, without any evidence, that the Hiroshi "mobile phone and the camera must have been 'paired.'"

In its Reply, Petitioner asserts that there was no battery drain issue with Bluetooth because the "pairing process need only happen once for each pair of devices," yet Petitioner has no answer for why the Bluetooth standards body had to come up with a Bluetooth Low Energy model after the 2.1 version. *See* Second Gajendragad [Exh. 2022] at ¶ 24.

While it is, of course, correct that initial pairing and exchange of link keys is only done once, devices using Bluetooth 2.1 had to expend a lot of battery energy to make sure if the paired devices are still in range (distance), reachable (interference, walls, metals), and measure signal strength (that can lead to longer

reconnection times). Hence the battery drain. *See* Second Gajendragad [Exh. 2022] at ¶ 25.

Bluetooth devices utilize a process called signal strength detection to determine if a paired device is still within range. This is done by measuring the Bluetooth Received Signal Strength Indicator (RSSI). The RSSI reflects the strength of the signal received at the receiver's end, allowing devices to estimate the distance between them. If the signal strength falls below a certain threshold, the devices understand that the other is no longer within range and can disconnect. *See* Second Gajendragad [Exh. 2022] at ¶ 26.

Constant RSSI Measurements are performed to check signal strength and distance of paired devices. When a Bluetooth device is paired with another, it periodically checks the strength of the radio signal coming from the paired device at the baseband level. The constant checking of RSSI values from paired devices is needed to figure out if and when they are out of range. Constant checking is also needed for automatic reconnection when the devices move back within range. This constant RSSI measuring and checking for paired devices keeps going whether the paired devices are in range or out of range. In view of the foregoing, the act of Pairing in Bluetooth 2.1 is NOT a one-time event as suggested by Petitioner. Rather, pairing consumes power constantly because of constant RSSI checks that

drain the battery. *See* Second Gajendragad [Exh. 2022] at ¶ 27; *see also* TTI-1019, 202, 327, 764, 813, and 1308.

Finally, Petitioner wrongly asserts that in its Reply that: "Mr. Gajendragad acknowledged at his deposition that his knowledge of pairing was limited" (citing to TTI-1039, 17:8-21:8). This is a clear overstatement, as Mr. Gajendragad diligently answered all questions while occasionally noting that the proper response "depends on the implementation" (because it obviously does). These responses do nothing more than reflect an expert who seeks precision, and the inability to recite the content of a 1400-page specification does not mean knowledge is "limited." *See* Second Gajendragad [Exh. 2022] at ¶ 28.

2. Authentication is NOT part of Pairing

Patent Owner has clearly shown (in its Original Response) that Authentication is different from Pairing, and Pairing does not always mean Authentication is present. Moreover, *both* are optional. *See* Second Gajendragad [Exh. 2022] at ¶ 29. Now, Petitioner concedes that Authentication in Bluetooth is optional, and offers zero evidence that Authentication was not optional and was always required. Petitioner also necessarily concedes that one can have an un-authenticated Bluetooth connection.

Petitioner's new theory on Authentication is based on using only Secure Simple Pairing. The Reply brief section header says: "Authentication Is Part of

Secure Simple Pairing," yet Petitioner fails to realize that in Bluetooth there are many types of pairings: Secure Simple Pairing, Simple Pairing, LMP-Pairing and Pairing. Again, all those are different options and kinds of Pairing in Bluetooth. Not only is pairing OPTIONAL, to opt for what kind of pairing to implement is also optional. This is reflected below (*see* TTI 1019, page 10, 20, 25, 26). Petitioner never advances any theory as to how or why a POSITA would only use Secure Simple Pairing. To reiterate, neither Pairing or Secure Simple Pairing was a default in Bluetooth 2.1, and Petitioner has not shown otherwise. *See* Second Gajendragad [Exh. 2022] at ¶ 30.

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Even the US NIST recommendation document that came out almost one year after the priority date ONLY calls for using Security Mode 4 and the "shall default" in Security Mode 4 is still "unauthenticated" and that too only for Secure

Simple Pairing, not every kind of pairing. *See* Second Gajendragad [Exh. 2022] at ¶¶ 20-22.

Again, Petitioner relies on Bluetooth 2.1 for Authentication being present in Secure Simple Pairing, but there is no evidence that this was enabled as of the priority date. *See Raytheon Technologies Corp. v. General Electric Co.,* 993 F.3d 1374 (Fed. Cir. 2021); *see also In re Gordon,* 733 F.2d 900, 902 (Fed. Cir. 1984). To reiterate, the Bluetooth Specification was 1400 pages in length, and offered countless alternatives and optional features. Petitioner now selectively identifies a specific combination using clear hindsight.

3. Bluetooth link NOT maintained on continuous basis

Without any evidence, Petitioner for the first time in its Reply argues: "Hiroishi maintains its Bluetooth connection on a continuous basis." This is a new theory and new assertion not present anywhere in the original Petition. In any event, Petitioner's new theory is factually wrong. *See* Second Gajendragad [Exh. 2022] at ¶ 31.

The known FACT is in Bluetooth 2.1 and before, connections (paired or otherwise) were NOT maintained on a continuous basis at ALL. Indeed, Bluetooth 2.1 relies on the connection interval and link supervision timeout to maintain the link connection for a specified amount of time. This was done for many reasons but one of them being the high drain on the battery on the phones with continuous

connection for Bluetooth 2.1 and before. *See* Second Gajendragad [Exh. 2022] at ¶ 32.

Link Supervision Timeout defines how long the Bluetooth device will wait for a response from the other Bluetooth device before assuming the connection is disconnected. The default timeout setting for disconnection in Bluetooth 2.1 (if there is no data from the other device) is 20 seconds. *See* Second Gajendragad [Exh. 2022] at ¶ 33. *See* TTI-1019 page 578:

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Host Controller Interface Functional Specification

6.20 LINK SUPERVISION TIMEOUT

The Link_Supervision_Timeout parameter is used by the master or slave Bluetooth device to monitor link loss. If, for any reason, no Baseband packets are received from that Connection Handle for a duration longer than the Link_Supervision_Timeout, the connection is disconnected. The same timeout value is used for both synchronous and ACL connections for the device specified by the Connection Handle.

Note: Setting the Link_Supervision_Timeout to No Link_Supervision_Timeout (0x0000) will disable the Link_Supervision_Timeout check for the specified Connection Handle. This makes it unnecessary for the master of the piconet to unpark and then park each Bluetooth Device every ~40 seconds. By using the No Link_Supervision_Timeout setting, the scalability of the Park state is not limited.

Value	Parameter Description
0x0000	No Link_Supervision_Timeout.
N = 0xXXXX	Size: 2 Octets Range: 0x0001 to 0xFFFF Default: 0x7D00 Mandatory Range: 0x0190 to 0xFFFF Time = N * 0.625 msec Time Range: 0.625 msec to 40.9 sec Time Default: 20 sec

The remote control of Hiroshi, even if it implemented Bluetooth 2.1 (which it was not) would NOT maintain paired connection on a continuous basis. The connection would disconnect after 20 seconds of inactivity as a default and a

maximum of 40.9 seconds. The assertions to the contrary by Petitioner and its expert are simply wrong, and do not reflect an understanding of basic Bluetooth 2.1 functionality. *See* Second Gajendragad [Exh. 2022] at ¶ 34.

"Connection Interval" (Hold Mode Max Interval, Sniff Mode Max Interval and all the others) determines how often a connection data exchange occurs, and is expressed in multiples of 1.25ms. A shorter interval means more frequent data exchange but also increased power consumption. *See* TTI-1019 page 646, 648 (below). But it is ALWAYS less than the link supervision timeout. *See* Second Gajendragad [Exh. 2022] at ¶ 35.

The Hold_Mode_Max_Interval shall be less than the Link Supervision Timeout configuration parameter.

Command Parameters:

Connection_Handle: *Size: 2 Octets (12 Bits meaningful)*

Value	Parameter Description
0xXXXX	Connection Handle to be used to identify a connection. Range: 0x0000-0x0EFF (0x0F00 - 0x0FFF Reserved for future use)

Hold_Mode_Max_Interval: *Size: 2 Octets*

Value	Parameter Description
N = 0xXXXX	Maximum acceptable number of Baseband slots to wait in Hold Mode. Time Length of the Hold = N * 0.625 msec (1 Baseband slot) Range for N: 0x0002-0xFFFE; only even values are valid. Time Range: 1.25ms - 40.9 sec Mandatory Range: 0x0014 to 0x8000

Command Parameters:

Connection_Handle: *Size: 2 Octets (12 Bits meaningful)*

Value	Parameter Description
0xXXXX	Connection Handle to be used to identify a connection. Range: 0x0000-0x0EFF (0x0F00 - 0x0FFF Reserved for future use)

Sniff_Max_Interval: *Size: 2 Octets*

Value	Parameter Description
N = 0xXXXX	Range: 0x0002 to 0xFFFE; only even values are valid Mandatory Range: 0x0006 to 0x0540 Time = N * 0.625 msec Time Range: 1.25 msec to 40.9 sec

A POSITA, when combining Hiroshi with Bluetooth 2.1, would certainly not make it continuous because the battery on the phone and the camera would not last more than 2 hours. There is no motivation to keep the continuous connection and would make the solution inoperable for most practical applications. When the POSITA uses the default standard Bluetooth 2.1, the POSITA would have soon discovered that the connection is disconnected after no activity is detected after 20 seconds. *See* Second Gajendragad [Exh. 2022] at ¶ 36.

In sum, Petitioner offers false arguments which make no sense in the context of Bluetooth 2.1 as of 2007.

4. Event Notifications are not taught by the cited art, either alone or in combination

Patent Owner stands by all the technical arguments it made in its Original Response explaining how event notifications are fundamentally different from request-response. The purported counter-arguments offered by Petitioner consist of pure attorney argument, which are largely unsupported even by Petitioner's own

expert.

The Petition oddly suggests that all of simple request, signal notification, and polling are all the same. *See, e.g.,* Petition at 19 ("Event listening/notification mechanisms like polling"). Even though at the District Court, Petitioner has agreed to specific constructions:

(i) "data signal notification(s)" as "an indication of the presence of newly acquired data," and

(ii) "poll" / "polling" as "checking status [of] on a predetermined basis."

Now, Petitioner seeks to equate all of "event-notification," "polling," and "request-response." Such obvious gamesmanship should be rejected.

In the related case (IPR2024-00768), Petitioner said "event driven" would not "have been pertinent to Bluetooth" but the reality is that the industry found it pertinent and Event Notifications were introduced in Bluetooth Low Energy (BLE), which was part of Bluetooth 4.0, and was released in 2010. *See* Bluetooth 4.0 Specification, available at: www.bluetooth.com/specifications/specs/core-specification-4-0/. *See* Second Gajendragad [Exh. 2022] at ¶ 37.

Further, Petitioner misleads the Board by asserting that "even in the 'event driven architecture,' the component expecting an event must wait." This statement is simply false. In the event driven architecture, the component expecting an event is passively "listening." That means the thread is not blocked, and the component is

actively doing other things, and just listening in the background (asynchronously) for an event if it occurs next at whatever time. *See* Second Gajendragad [Exh. 2022] at ¶ 38.

Applications can be designed to do nothing if the event happens, or do nothing if the event does not happen. This does not change the fact that "event driven architecture" is markedly different from "request response architecture." There is no discussion of synchronous or asynchronous in the specification, because in 2007, the POSITA would have known that when one component is "listening" for an "event" or "signal" from another component it is common knowledge that this is based on event architecture. *See* Second Gajendragad [Exh. 2022] at ¶ 39. Of course, "the specification need not use the exact claim language" if it conveys possession. *See Centrak, Inc. v. Sonitor Technologies, Inc.,* 915 F.3d 1360, 1366 (Fed. Cir. 2019).

Petitioner further argues that "nothing prevents software from sending requests and responding to events, and thus having aspects of both these alleged architectures." While Patent Owner does not disagree with that statement, it nevertheless points out that if the whole software has 50 components, each component can do its own thing. But each particular component would only do one or the other. For example, one could have three data acquiring components: one is based on request-response, the second is based on polling, the third is based on

event-notification. This does not mean ALL three of them are the same. And Hiroshi and Kahn only disclose request-response. *See* Second Gajendragad [Exh. 2022] at ¶ 40.

Still further, Petitioner argues that since the claim has a limitation that says "request to enable event notifications," somehow event notification is request-based. This is again incorrect, as requests to enable event notifications once do not make the event-based systems a request-based system. Enablement for the event notification is only done once for plurality of events and there is NO subsequent request to get "each" event notification. Once enabled, the event notifications keep on getting generated every time there is new-data. There is no individual request for each new signal/event notification. A POSITA understands that you have to "enable" event notifications once. There is NO request to "get" notifications. *See* Second Gajendragad [Exh. 2022] at ¶ 41.

For these reasons, a POSITA would never think that Hiroshi or Kahn are teaching any event notification, enabling event notification, listening for event notification, or processing event notifications. The Petitioner misapplies basic computer science coding differentiation between event-based-notification-listening and basic request-response mechanisms. *See* Second Gajendragad [Exh. 2022] at ¶ 42.

Still further, Petitioner asserts: "Hiroishi specifically discloses the

transmission of image data containing multiple thumbnails." Of course, it is noted that sending a request to the camera of Hiroshi to send all images or 12 images that have already been captured previously, is not the same as enabling event notifications once, to send a new notification every time a new image is captured on the camera. The point is that in Hiroshi, *every time* a photo is to be received, the Hiroshi state machine has to send a request. Conversely, the patents call for the enablement of event notifications, and after the event notifications are enabled, there is NO need to send any other request to get the newly captured photo. The event architecture will automatically send the event signal when the camera captures the new image/data. There is NO need for subsequent request messages for new images. The event-based architecture is completely different. *See* Second Gajendragad [Exh. 2022] at ¶ 43.

Finally, when Patent Owner argues that "event notification" in an event-driven architecture is "broadcast-like" as opposed to "direct," the point is to explain the event architecture, mainly that the same "event" can be subscribed / listened to my multiple components in a system simultaneously. Event architecture is different from request-response and is different from polling. These terms cannot be conflated, which is what Petitioner does repeatedly. *See* Second Gajendragad [Exh. 2022] at ¶ 44.

5. Polling for New Data is not taught (Claim 9)

The claim construction agreed by Petitioner at the District Court for "poll / polling" is: "checking status [of] on a predetermined basis."

In its Reply, Petitioner again asserts that this "limitation is met by Hiroshi's request for thumbnails," with no evidence of checking status [thumbnail] on a predetermined basis anywhere in Hiroshi. *See* Second Gajendragad [Exh. 2022] at ¶ 46.

Further, Petitioner originally relied on Bluetooth specification (TTI-1019, 332) in support of its contention that "Bluetooth teaches polling." *See, e.g.,* TTI 1019, 332 (8.6.1 Polling in the active mode). Specifically, Bluetooth teaches that "to avoid collisions on the ACL logical transport." As explained previously by Patent Owner, Hiroshi's "request for thumbnail" is NOT checking status on a predetermined basis of anything. Rather, it is a simple request for thumbnail. *See* Second Gajendragad [Exh. 2022] at ¶ 47.

Petitioner's Reply now only relies on Bluetooth 2.1 specification and its "T poll Slots." Specifically, Petitioner says: "For example, see the 'Polling in the active mode' section where a 'master normally attempts to poll a slave … no less often than once every Tpoll slots.' TTI-1019, 332." *See* Second Gajendragad [Exh. 2022] at ¶ 48.

The reliance on T poll slots is factually wrong. "T poll" in Bluetooth 2.1 is

used to "support bandwidth allocation and latency control," it is a QoS (quality of service) metric for the piconet connections to avoid collisions at the data link layer level (link manager protocol) when there are multiple slaves and has NOTHING to do with new data captured or thumbnails or any higher-level data. *See* Second Gajendragad [Exh. 2022] at ¶ 49. *See* TTI-1019, 404:

> BLUETOOTH SPECIFICATION Version 2.1 + EDR [vol 2] page 234 of 906
>
> *Link Manager Protocol* Bluetooth
>
> **4.1.8 Quality of service (QoS)**
>
> The LM provides QoS capabilities. A poll interval, T_{poll}, that is defined as the maximum time between transmissions from the master to a particular slave on the ACL logical transport, is used to support bandwidth allocation and latency control - see Baseband Specification, Section 8.6.1, on page 162 for details. The poll interval is guaranteed in the active and sniff modes except when there are collisions with page, page scan, inquiry and inquiry scan, during time critical LMP sequences in the current piconet and any other piconets in which the

It seems Petitioner simply performed a search for the word "poll" in the 1400-page Bluetooth document and said it would have been obvious, without any understanding of what T poll is, and what it is used for. Moreover, T Poll is mainly used for avoiding collisions when there are more than one slaves in a Piconet, in one-to-one connections they are not even used. *See* Second Gajendragad [Exh. 2022] at ¶ 50. *See* TTI-1019, 332.

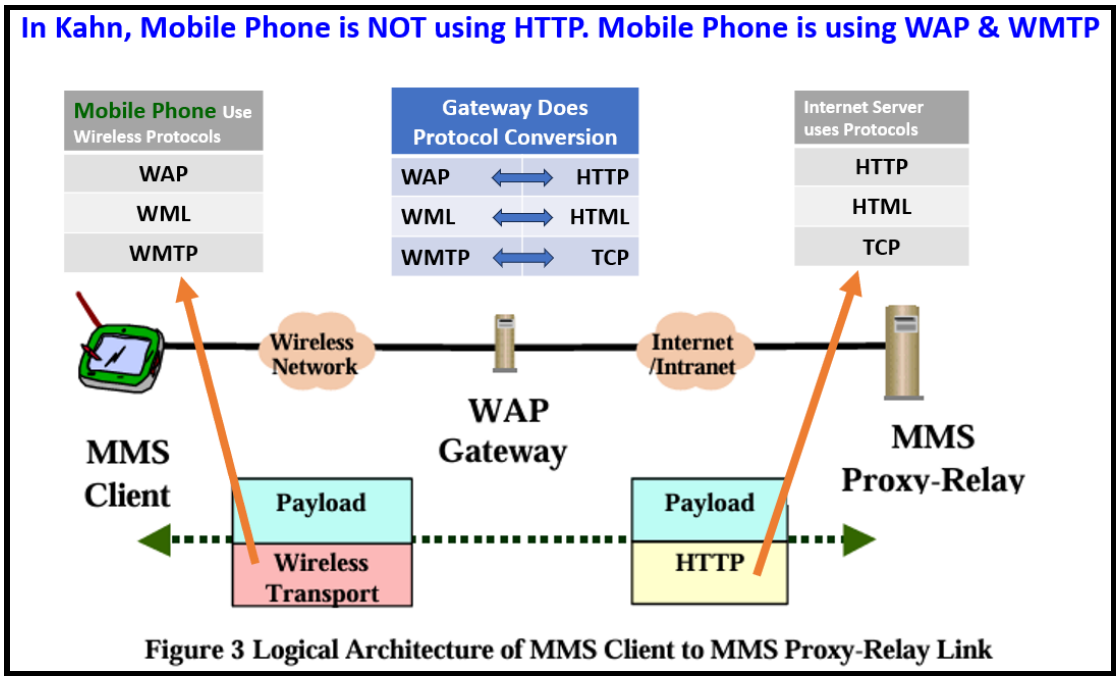
Clearly, a POSITA would not combine low level T poll that is used as a QoS metric at the "link manager protocol" in Bluetooth 2.1 to the mobile application of the Hiroshi thumbnail request. *See* Second Gajendragad [Exh. 2022] at ¶ 51.

6. Kahn does not satisfy the HTTP limitations

Petitioner does not dispute what Patent Owner illustrated in its Original Response, and specifically regarding Khan Fig 5C, Fig 5D, Fig 5A, Fig 5G and how all these figures show the use of WAP and WMTP for upload and login. Rather, Petitioner only points out that in the institution decision, the Board said Patent Owner purportedly "reads Kahn too narrowly." Of course, the institution decision is not binding on this point, including because the Board did not have the benefit of Mr. Gajendragad showing in great detail how the specification talks about WAP and how the WMTP is part of the WAP architecture. Moreover, Patent Owner responded to that issue in its Original Response and explained that the Board's misunderstanding was based on the fact that Board was not able to find WMTP anywhere else in the Text, and WMTP is part of WAP architecture. Mr. Gajendragad explained that in 2004, WMTP was part of the WAP stack and how the drafter of Kahn plainly assumes that the POSITA in 2004 was familiar with the WAP Stack and WMTP was the transport protocols for WAP.

As Patent Owner further explained in its Original Response, under no reading of Kahn would a POSITA mistake a transport protocol of WAP WMTP with HTTP for both login and upload (as shown in great detail for 5A, 5C, 5D, and 5G images in Kahn). Now, Petitioner asserts that WAP Gateways were used in the prior art, as Mr. Gajendragad noted in his deposition. Of course, Patent Owner

agrees that WAP gateways were used in 2007, but this does not help Petitioner. Rather, it reinforces the point made in the Original Response; namely, that in Kahn, the use of gateway further illustrated that Mobile phone is NOT using HTTP, even if the image server uses HTTP. The claim requires the mobile software to use HTTP for upload. In the WAP gateway scenario, the mobile phone will use WAP and not HTTP. The WAP gateway will do the translation. The claims, on the other hand, require the mobile device to use HTTP. Below, Patent Owner has annotated the image relied on by Petitioner to showcase what protocols are use where and how the translation works on the WAP Gateway. Support for this WAP to HTTP translation can be found in Exhibit 2026 (2006 Cisco IOS WAP Gateway document, at page 2 figure 1) (The non-annotated base image is from page 15 of TTI 1013) (*See* Second Gajendragad [Exh. 2022] at ¶ 52):



E. Ground Two: Singh 129 in view of Singh 906 Fails

1. The Examiner determination clearly indicates that the overall disclosure is unified and enabling

By way of its Reply, Petitioner claims that Patent Owner improperly "mixes and matches" claim limitations by combining elements from the original specification with features drawn from an expressly incorporated patent application. To bolster that argument, Petitioner relies on *Research Corp. v. Microsoft Corp.,* 627 F.3d 859, 870 (Fed. Cir. 2010) and *Lockwood v. American Airlines, Inc.,* 107 F.3d 1565, 1571–72 (Fed. Cir. 1997), and further cites the rationale articulated in *SharkNinja Operating* and *Intuitive Surgical*.

In direct contrast, and as shown in the Original Response, the Examiner at the USPTO – acting as a person of ordinary skill in the art – plainly recognized, at the Notice of Allowance, that the additional claim limitations drawn from both the parent specification and the incorporated reference were all fully supported. This Examiner determination clearly indicates that the overall disclosure is unified and enabling, rather than a so-called disjointed "mixing and matching" of unrelated embodiments. Due deference is assigned to such factual findings of the Examiner.

2. Incorporation by reference and unified disclosure

Petitioner concedes that the incorporation by reference into the original disclosure is proper, clear and in unambiguous manner. The Federal Circuit

unequivocally supports the principle that when material is incorporated by reference in a clear and unambiguous manner, that material is to be given the same effect as if it were fully set forth in the specification. *See, e.g., Callaway Golf Co. v. Acushnet Co.,* 576 F.3d 1331, 1338 (Fed. Cir. 2009) ("When material is incorporated by reference in a specification in a clear and unambiguous manner, that material is to be given the same effect as if it were fully set forth in the specification").

In this case, the language of both the parent specification and the incorporated application unequivocally ties the additional material to the core inventive concept. Again, the Examiner's decision to adopt limitations *from both sources* confirms that a POSITA would interpret the entire disclosure as a single, unified embodiment.

3. Examiner understanding and deference

In its Reply, the Petitioner fails to address a critical factor in this case; namely, the Examiner's clear understanding of the integrated disclosure, as evidenced by the Notice of Allowance. The Examiner's inclusion of claim limitations derived from *both the original specification and the incorporated reference* is compelling evidence that the Examiner viewed the disclosure as unified and enabling. In fact, the Examiner's analysis was not a result of hindsight but was based on a careful review of the record. PTAB functions as a reviewing

body, meaning it should afford deference to factual findings made by patent examiners. For example, the Supreme Court in *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc*., 574 U.S. 318 (2015) held that subsidiary factual findings made in patent claim construction must be reviewed under the "clear error" standard rather than *de novo*. The Court emphasized that when reviewing extrinsic evidence, appellate bodies must defer to lower factual findings unless clearly erroneous. Of course, the Examiner is presumed to have the perspective of a POSITA, and his views from that perspective are instructive. *See In re Sang Su Lee,* 277 F.3d 1338, 1345 (Fed. Cir. 2002). Further, a factual finding should not be disturbed as long as it was supported by substantial evidence. *See, e.g., Dickinson v. Zurko*, 527 U.S. 150, 164 (1999). In view of the foregoing, the findings of the Examiner should be credibly viewed as supporting the fact that the disclosure was properly integrated.

Because the Examiner—an experienced unbiased professional representing the level of skill in the art—determined that the incorporated material was seamlessly integrated into the invention, this factual finding must be accorded significant weight. Thus, the examiner's understanding and NOA decisively undermines the challenger's contention that the claim limitations result from an improper "mixing and matching" of disparate embodiments.

4. Purported "mixing and matching"

Petitioner argues that combining limitations from the original disclosure and the incorporated reference results in a failure of the written description requirement. Of course, the written description requirement is met when the specification clearly conveys that the inventor possessed the claimed invention, enabling one of ordinary skill in the art to practice the invention without undue experimentation. *See, e.g., Ariad Pharmaceuticals, Inc. v. Eli Lilly & Co.,* 598 F.3d 1336, 1345 (Fed. Cir. 2010).

Petitioner's reliance on *Research Corp. and Lockwood* is misplaced. Here, as confirmed by the Examiner's determination and the integrated disclosure itself, the combined teachings are deliberate and clear. Furthermore, considerations from *SharkNinja* and *Intuitive Surgical* caution against arbitrary combinations; yet, when the incorporated reference is as clearly identified and contextually integrated as it is in this case, its teachings may be combined with those of the parent.

Finally, the USPTO examiner's clear understanding, as evidenced by the notice of allowance, confirms that the disclosure was intended to function as a cohesive single invention under the deference prescribed by *Teva*. We therefore respectfully request that the Board affirm the examiner's findings and uphold the patent owner's claims.

F. No Circumvention

Petitioner complains that the images in the Response are actually designed as tricks to "circumvent the word count limit." Of course, a review of the images quickly dispels such notion, as each image simply reflects facts which are otherwise stated in the brief or is offered for the convenience of the Board (as opposed to pulling the same from the cited exhibit). None of the images contain argument, and Petitioner's objection lacks merit.

//

Date: May 2, 2025

Respectfully submitted,

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CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the foregoing complies with the type-volume limitations of 37 C.F.R. § 42.24 and contains 5,478 words, excluding those portions exempted under 37 C.F.R. § 42.24(a)(1).

Dated: May 2, 2025

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CERTIFICATION OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e) and 42.105(b), the undersigned certifies that on May 2, 2025, a copy of the foregoing document was served by electronic mail on the following:

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