UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS CO. LTD.,
Petitioner,

v.

HEADWATER RESEARCH LLC,
Patent Owner.

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Case IPR2023-01157
Patent 11,405,224 B2

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# PATENT OWNER'S PRELIMINARY RESPONSE

# TABLE OF CONTENTS

I. INTRODUCTION ..... 1

II. BACKGROUND ..... 3

A. Overview of the '224 Patent ..... 3

B. Summary of the Prosecution of the '224 Patent ..... 5

III. LEVEL OF ORDINARY SKILL IN THE ART ..... 8

IV. CLAIM CONSTRUCTION ..... 8

V. OVERVIEW OF THE ALLEGED PRIOR ART ..... 8

VI. THE BOARD SHOULD DENY INSTITUTION BECAUSE IT WOULD NOT HAVE BEEN OBVIOUS TO COMBINE THE ASSERTED REFERENCES AS THE PETITION PROPOSES. ..... 12

A. The Petition concedes that the prior art does not disclose the limitations the Examiner found to be novel over the prior art of record. ..... 13

B. The Petition fails to establish that its combination would have been obvious. ..... 16

VII. THE BOARD SHOULD EXERCISE ITS DISCRETION UNDER 35 U.S.C. § 325 (d) TO DENY INSTITUTION. ..... 24

A. *Advanced Bionics* Step 1 (*Becton, Dickinson* Factors (a), (b), and (d)): The same or substantially the same prior art was previously presented to the USPTO. ..... 26

1. Cole and Rao are cumulative of and substantially the same as nearly identical family members considered by the Examiner during prosecution. ..... 26

2. The Petition's reliance on D'Amore for certain limitations of claims 1, 4, and 11 does not change the Section 325(d) calculus. ..... 30

3. The Petition's reliance on Aleksic and Freund only for certain dependent claims likewise does not counsel against denial of institution. ..... 39

B. *Advanced Bionics* Step 2 (*Becton, Dickinson* Factors (c), (e), and (f)): Petitioner has made no showing of material Examiner error. ..... 41

VIII. CONCLUSION ..... 43

# TABLE OF AUTHORITIES

**Cases**

*Adidas AG v. Nike, Inc.*,
963 F.3d 1355 (Fed. Cir. 2020).....22

*Advanced Bionics, LLC v. Med-El Elektromedizinische Gerate GmbH*,
IPR2019-01469, Paper No. 6 (PTAB Feb. 13, 2020).....passim

*Becton, Dickinson & Co. v. B. Braun Melsungen AG*,
IPR2017-01586, Paper No. 8 (PTAB Dec. 15, 2017).....26

*Biocon Pharma Ltd. v. Novartis Pharms. Corp.*,
IPR2020-01263, Paper No. 12 (PTAB Feb. 16, 2021).....29

*BMW of N. Am., LLC v. Stragent, LLC*,
IPR2021-00419, Paper No. 14 (PTAB July 19, 2021).....29

*BMW of N. Am., LLC v. Stragent, LLC*,
IPR2021-00419, Paper No. 21 (PTAB Mar. 21, 2022).....29

*EcoFasten Solar, LLC v. Unirac, Inc.*,
IPR2021-01379, Paper No. 11 (PTAB Feb. 8, 2022).....40

*Eyenovia, Inc. v. Sydnexus*,
IPR2022-00963, Paper No. 7 (PTAB Nov. 8, 2022).....29, 42

*Gator Bio, Inc. v. Sartorius Bioanalytical Instruments, Inc.*,
IPR2023-00215, Paper No. 19 (PTAB June 20, 2023).....42

*Ivantis, Inc. v. Sight Sciences, Inc.*,
IPR2022-01530, Paper No. 14 (PTAB Mar. 27, 2023).....28

*Kayak Software Corp. v. Int'l Bus. Machs. Corp.*,
CBM2016-00075, Paper No. 16 (PTAB Dec. 15, 2016).....37

*KSR Int'l Co. v. Teleflex Inc.*,
550 U.S. 398 (2007).....passim

*Microsoft Corp. v. AlmondNet, Inc.*,
IPR2022-01319, Paper No. 9 (PTAB Jan. 30, 2023).....29, 37, 39

*Microsoft Corp. v. AlmondNet, Inc.*,
IPR2022-01319, Paper No. 13 (PTAB Mar. 24, 2023).....29

*Microsoft Corp. v. AlmondNet, Inc.*,
IPR2022-01319, Paper No. 14 (PTAB Apr. 23, 2023).....29

*Microsoft Corp. v. ThroughPuter, Inc.*,
IPR2022-00757, Paper No. 10 (PTAB Nov. 1, 2022).....41, 42

*Miltenyi Biomed. GmbH v. Trs. of Univ. of Pa.*,
IPR2022-00853, Paper No. 11 (PTAB Oct. 11, 2022).....36, 39

*Miltenyi Biomed. GmbH v. Trs. of Univ. of Pa.*,
IPR2022-00853, Paper No. 18 (PTAB Feb. 17, 2023).....37

*Palo Alto Networks, Inc. v. Centripetal Networks, Inc.*,
IPR2021-01156, Paper No. 10 (PTAB Jan. 24, 2022).....28

*Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*,
411 F.3d 1332 (Fed. Cir. 2005).....22

*Vital Connect, Inc. v. Bardy Diagnostics, Inc.*,
IPR2023-00381, Paper No. 7 (PTAB July 11, 2023).....30

*Vovomart (HK) Enters. Co. v. Office Kick, Inc.*,
PGR2022-00048, Paper No. 14 (PTAB Jan. 12, 2013).....29

*Vovomart (HK) Enters. Co. v. Office Kick, Inc.*,
PGR2022-00048, Paper No. 16 (PTAB Mar. 9, 2023).....29

*Xerox Corp. v. Bytemark, Inc.*,
IPR2022-00624, Paper No. 9 (PTAB Aug. 24, 2022).....21, 23

**Statutes**

35 U.S.C. § 325(d).....passim

# PATENT OWNER'S EXHIBIT LIST

| No. | Description |
|---|---|
| Ex. 2001 | U.S. Patent Application Publication No. 2008/0080457 to Cole ("Cole-2") |
| Ex. 2002 | Redline of the text of Cole (Ex. 1005) and Cole-2 (Ex. 2001) |
| Ex. 2003 | International Publication No. WO 2006/012610 to Rao et al. ("Rao-2") |
| Ex. 2004 | Redline of the text of Rao (Ex. 1007) and Rao-2 (Ex. 2003) |
| Ex. 2005 | U.S. Patent Application Publication No. 2007/0157203 to Lim ("Lim") |

# I. INTRODUCTION

The Board should deny institution of *inter partes* review ("IPR") of U.S. Patent No. 11,405,224 ("the '224 Patent") for two independent reasons.

*First*, the Petition should be denied on the merits. All grounds of the Petition rely on a combination of at least three references, including Cole, D'Amore, and Rao, but none of these references teach limitations the Examiner found to be missing from the prior art (including from the disclosures of Cole and Rao). Instead, the Petition relies on a proposed combination of all three of Cole, D'Amore and Rao, stitching together selected portions of each reference to meet those limitations. But the Petition's patchwork combination of those three references uses Rao's "packet capture mechanism" for a completely different purpose than taught by Rao itself: scheduling *application activity* rather than controlling priority of *individual packets* as disclosed by Rao.

Indeed, the Petition provides no evidence that any prior art discloses or suggests applying a packet capture mechanism to schedule application activity. Because the Petition proposes an entirely new way of applying Rao's packet capture mechanism for a ***different*** purpose than taught by Rao, the Petition's combination is clearly "more than the predictable use of prior art elements according to their established functions." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). Despite the Petition's hindsight proposal to use a packet capture mechanism in a way

that the Petition does not allege had ever been done before, the Petition provides no rationale for why it would have been obvious for a person of ordinary skill in the art ("POSITA") to invent the idea of using Rao's packet capture mechanism for the unconventional purpose of using packet capture to schedule application level activity (rather than to control transmission of individual packets). Accordingly, the Petition cannot show unpatentability of any challenged claim.

*Second*, the Board should exercise its discretion and deny institution under 35 U.S.C. § 325(d) because the USPTO has already considered the same or substantially the same prior art as that presented in the Petition, and the Petition has failed to show that the Examiner materially erred during prosecution.

On Ground 1A (the only ground that challenges the sole independent claim of the '224 Patent), the Cole, D'Amore, and Rao references are cumulative of and substantially the same as art the Examiner considered during prosecution. In particular, as the Petition admits, a family member with nearly identical disclosures as the Petition's lead reference Cole was considered by the Examiner during original prosecution. As the Petition also admits, the same is true of Rao. As for the disclosures from D'Amore on which the Petition relies, such disclosures are cumulative of and substantially similar to those from the Lim reference explicitly cited and discussed by the Examiner in the Notice of Allowance, as well as disclosures from Cole and Rao.

And the additional references that the Petition adds in Ground 1B (Freund) and Ground 1C (Aleksic) do not justify institution of review. Grounds 1B and 1C both rely on the same three reference combination to meet the elements of the independent claim, and thus are cumulative for the same reasons. These references are only relied upon for certain aspects of dependent claims, and in any event, Aleksic was considered by the Examiner during prosecution.

The Board should deny institution of the Petition.

## II. BACKGROUND

### A. Overview of the ’224 Patent

At a high level, the ’224 Patent is generally directed to, for a “plurality of applications,” “monitor[ing] a network service usage activity… associated with the given application,” classifying those network service activities based on the associated application, associating each of the network service usage activities with a service usage control policy that is dynamically selected based on a device state, and using the dynamically selected control policy to defer network service usage activities and manage network data access. More specifically, the only independent claim recites:

1. A wireless end-user communications device, comprising:

[1.1] at least one wireless modem;

[1.2] a processor configured to:

[1.3] for each given application of a plurality of applications on the wireless end-user device, monitor a network service usage activity of the wireless end-user communications device associated with the given application;

[1.4] classify, as a first classification for each given one of the network service usage activities, a classification based on the application associated with the given network service usage activity and that allows for a differential network access control, wherein the differential network access control comprises a set of service usage control policies applicable when a network service is available via the at least one wireless modem, including at least a first policy that allows the given network service usage activity to currently communicate data with a network destination via the at least one wireless modem, and a second policy that defers data communication associated with the given network service usage activity until a device state change occurs;

[1.5] associate each given one of the network service usage activities with a service usage control policy dynamically selected from the set of service usage control policies, based on the first classification of the given network service usage activity and at least one device state; and

[1.6] manage network data access via the at least one wireless modem for each of the plurality of applications according to the dynamically selected service usage control policy for each given network service activity of that application; and

[1.7] a memory coupled to the processor and configured to provide the

processor with instructions.

Ex. 1001 at claim 1 (numbering added, consistent with that of the Petition (*see* Pet. at vi-vii)).

This solution provides the advantage of deferring individual network service usage activities of a particular application. For example, the invention does not require blocking ***all*** activities associated with any given application in response to a particular device state, because the individual network service usage activities associated with an application are monitored and managed.

### B. Summary of the Prosecution of the '224 Patent

In response to a rejection over the "Morgensen" reference, U.S. Patent Application Publication No. 2004/0268351, the Applicant amended pending claim 1 as reproduced below, to make clear that the "network service usage activit[ies]" that are monitored are "associated with [a] given application," that those network service usage activities are associated with a service usage control policy based in part on a "device state," and that network data access is managed "according to the dynamically selected service usage control policy for each given network service activity of that application":

1. (Currently Amended) A wireless end-user communications device ~~system~~, comprising:

at least one wireless modem;

a processor ~~of a communications device~~ configured to:

for each given application of a plurality of applications on the device, monitor a network service usage activity of the communications device associated with the given application ~~in network communication~~;

classify, as a first classification for each given one of the network service usage activities, a classification based on the application associated with the given network service usage activity and that allows ~~activity~~ for differential network access control, wherein the differential network access control comprises a set of service usage control policies applicable when network service is available via the at least one wireless modem, including at least a first policy that allows the given network service usage activity to currently communicate data with a network destination via the at least one wireless modem, and a second policy that defers data communication associated with the given network service usage activity until a device state change occurs ~~for protecting network capacity~~; [[and]]

associate each given one of the network service usage activities ~~activity~~ with a service usage control policy dynamically selected from the set of service usage control policies, based on the first [[a]] classification of the given network service usage activity and at least one device state ~~to facilitate differential network access control for protecting network capacity~~; and

manage network data access via the at least one wireless modem for each of the plurality of applications according to the dynamically selected service usage control policy for each given network service activity of that application; and

a memory coupled to the processor and configured to provide the processor with instructions.

Ex. 1002 at 88-89. In response, the Examiner allowed the claim as amended, because

the prior art of record failed to disclose, in particular, claim elements [1.5] and [1.6]:

> Solomone and Lim fails to disclose
>
> **associate each given one of the network service usage activities activity with a service usage control policy dynamically selected from the set of service usage control policies, based on the first classification of the given network service usage activity and at least one device state; and manage network data access via the at least one wireless modem for each of the plurality of applications according to the dynamically selected service usage control policy for each given network service activity of that application;**

*Id.* at 31 (citing "Solomone," U.S. Patent Application Publication No. 2007/0263558, and "Lim," U.S. Patent Application Publication No. 2007/0157203 (Ex. 2005)).

In addition to the Solomone and Lim references, the Examiner also considered family members to the Cole and Rao references relied on in the Petition, which have only negligible differences of no consequence to the invalidity theories presented by the Petition. Ex. 2002 (comparison of Cole to the Cole family member before the Examiner); Ex. 2004 (comparison of Rao to the Rao family member before the Examiner); *see* Pet. at 82 (admitting the Cole and Rao family members were before the Examiner); *see also* Ex. 1001 at 12, 14 (listing the Cole and Rao family members in the References Cited section); Ex. 1002 at 179, 203, 462 (listing the Cole and Rao family members on IDSs that the Examiner signed); *infra* § VII.A.1. The Examiner also considered the Aleksic reference during prosecution. *See* Ex. 1001 at 12 (listing

Aleksic in the References Cited section); Ex. 1002 at 130 (listing Aleksic on an IDS that the Examiner signed); *see also infra* § VII.A.3.

## III. LEVEL OF ORDINARY SKILL IN THE ART

The Petition proposes that a POSITA in the field of the '224 Patent "would have has (1) at least a bachelor's degree in computer science, electrical engineering, or related field, and (2) three to five years of experience with networking, power consumption of networked computing devices, and/or wireless digital communications systems. Additional graduate education could substitute for professional experience, and *vice versa*." Pet. at 3 (internal citation omitted). For purposes of this preliminary response, Patent Owner does not challenge that definition.

## IV. CLAIM CONSTRUCTION

The Petition states that "Petitioner submits that no formal claim constructions are necessary." *Id.* at 2. For purposes of this preliminary response only, Patent Owner agrees that no formal claim construction is necessary.

## V. OVERVIEW OF THE ALLEGED PRIOR ART

The Petition relies on a combination of three separate references in its allegation of obviousness for independent claim 1 of the '224 Patent. At a high level, the Petition relies on Cole and D'Amore for their teachings of scheduling ***application*** activity and allocating device resources to ***applications***, while the

Petition relies on Rao for its teachings regarding a much different solution which involves granular control of individual ***packets*** of data.

Cole focuses on the use of a "connection manager" which "provides functionality to simplify the user experience by automatically managing connectivity" to various networks. Ex. 1005 ¶[0039]. One aspect of Cole's connection management, as explained by the Petition, is that "when 'the monitored load exceeds a predetermined threshold (e.g., 85% of capacity), the connection manager 260 may take one of several actions to manage the load.'" Pet. at 7-8 (quoting Ex. 1005 ¶[0075]). As purported examples of the actions Cole's connection manager may take, the Petition states: "Cole describes that ***applications*** can be 'aborted,' 'postpone[d],' cancelled and re-scheduled, and 'block[ed].'" *Id.* (quoting Ex. 1005 ¶¶[0080], [0085]-[0090], [0125]);[1] *see also id.* at 7 (Cole's "connection manager can also "schedule various events" using a "scheduler" (also annotated) to "effectively use available bandwidth.") (quoting Ex. 1005 ¶¶[0074], [0036], [0118], [0119]).

The Petition asserts that in this way, "Cole already describes utilizing certain policies to control the ***execution of applications***." *Id.* at 13. The Petition further states: "Cole describes that 'certain background tasks' ('***network service usage activities'***) can be 'postponed automatically' ('***allows for a differential network***

[1] All emphases herein are added unless specified otherwise.

***access control***')." *Id.* at 38 (quoting Ex. 1005 ¶[0085]) (emphases in original). Thus, the Petition relies on Cole for its teachings relating to scheduling or deferring ***application*** activity.

The Petition argues that D'Amore similarly manages resources, such as network connections, provided to ***applications*** by evaluating the application requesting the connection. Specifically, the Petition states that D'Amore "describes 'management and arbitration of dedicated mobile communication resources for mobile ***applications***.'" *Id.* at 9 (quoting Ex. 1006 at Abstract). According to the Petition, "[t]his management is accomplished through a 'priority level that establishes an importance with respect to one or more other mobile applications and at least one mobile resource.'" *Id.* The Petition thus relies on teachings from both Cole and D'Amore relating to managing an ***application's*** access to device resources.

In contrast, the teachings of Rao relied on by the Petition focus on the analysis and control of ***individual packets***, rather than control of any ***application*** behavior. Indeed, Rao teaches that its interception and control of packets "is performed ***transparently to an application*** of the client communicating via the network connection," such that applications are not even ***aware*** of the effects of Rao's interception and control of packets. Ex. 1007 ¶[0052]; *id.* ¶[0201] ("[T]he illustrative method may communicate any queued network packets and continue with the session transparently as if the network disruption did not occur."). Rao explains that

it implements these techniques by employing a "***packet*** capture mechanism" to intercept specific network packets which "may forward the packets to … a frame monitor mechanism 360." *Id.* ¶[0102], [0104].

By intercepting individual packets, Rao's "frame monitor 360 may include policies and logic for applying a policy ***to a received packet***." *Id.* ¶[0108]. Indeed, Rao explains that its "filtering table is used to determine what action to take against ***packets***." *Id.* ¶[0102]. The actions may "drop or accept the network packets," "route the network packets," and "ensure that unwanted packets are discarded." *Id.* Moreover, as the Petition explains, "Rao's system can 'use the policies 520 to determine ***which network packets*** to queue and/or discard.'" Pet. at 20 (quoting Ex. 1007 ¶[0207]). Thus, Rao intercepts and monitors ***packet*** activity to influence the transmission or control of data on a ***packet*** level of granularity.

Indeed, Rao's Abstract extols the benefits of its "techniques to optimize peer-to-peer communications," such as:

> 1) ***false acknowledgement of receipt of network packets*** allowing communications via a lossless protocol of packets constructed for transmission via a lossy protocol, 2) ***payload shifting of network packets*** allowing communications via a lossless protocol of packets constructed for transmission via a lossy protocol, 3) ***reduction of packet fragmentation*** by adjusting the maximum transmission unit (MTU) parameter, accounting for overhead due to encryption….

Ex. 1007 at Abstract. This transparent interception, analysis, and control of packets allows Rao, for example, to "communicate any queued network packets and continue with the session transparently as if the network disruption did not occur." Ex. 1007 ¶[0201].

Accordingly, the teachings of Rao on which the Petition relies have a very different purpose from the purposes of Cole and D'Amore, in that Rao uses its packet capture mechanism solely to influence how particular ***packets*** are transmitted through a network. Rao teaches capturing and analyzing packets to make decisions regarding how to control those individual packets, and does not teach or suggest using packet capture to schedule or defer application behavior, or prioritize allocation of system resources to applications—to the contrary, Rao teaches that its methods may be performed transparently to applications. And neither Cole nor D'Amore teach or suggest the use of a packet capture mechanism to influence the control of application behavior.

## VI. THE BOARD SHOULD DENY INSTITUTION BECAUSE IT WOULD NOT HAVE BEEN OBVIOUS TO COMBINE THE ASSERTED REFERENCES AS THE PETITION PROPOSES.

It is undisputed that no single prior art reference teaches or renders obvious limitations [1.5] or [1.6], the exact limitations the Examiner expressly relied on in allowing the challenged claims. *See* Ex. 1002 at 31. Rather, the Petition relies explicitly on a combination of at least three separate references involving different

technologies to arrive at these limitations, using allegations of what a POSITA would have recognized as of January 28, 2009.

The Petition, however, provides no credible reason why a POSITA would have thought to combine the three references it relies on in Ground 1A (the only ground challenging the sole independent claim) in the precise, unconventional manner the Petition alleges, given that the references relate to different technologies and the combination involves the use of those technologies for purposes other than their conventional purposes. Because Grounds 1B and 1C also rely on the same combination of references, and only rely on secondary references for certain dependent claim limitations, those grounds fail for the same reasons as Ground 1A.

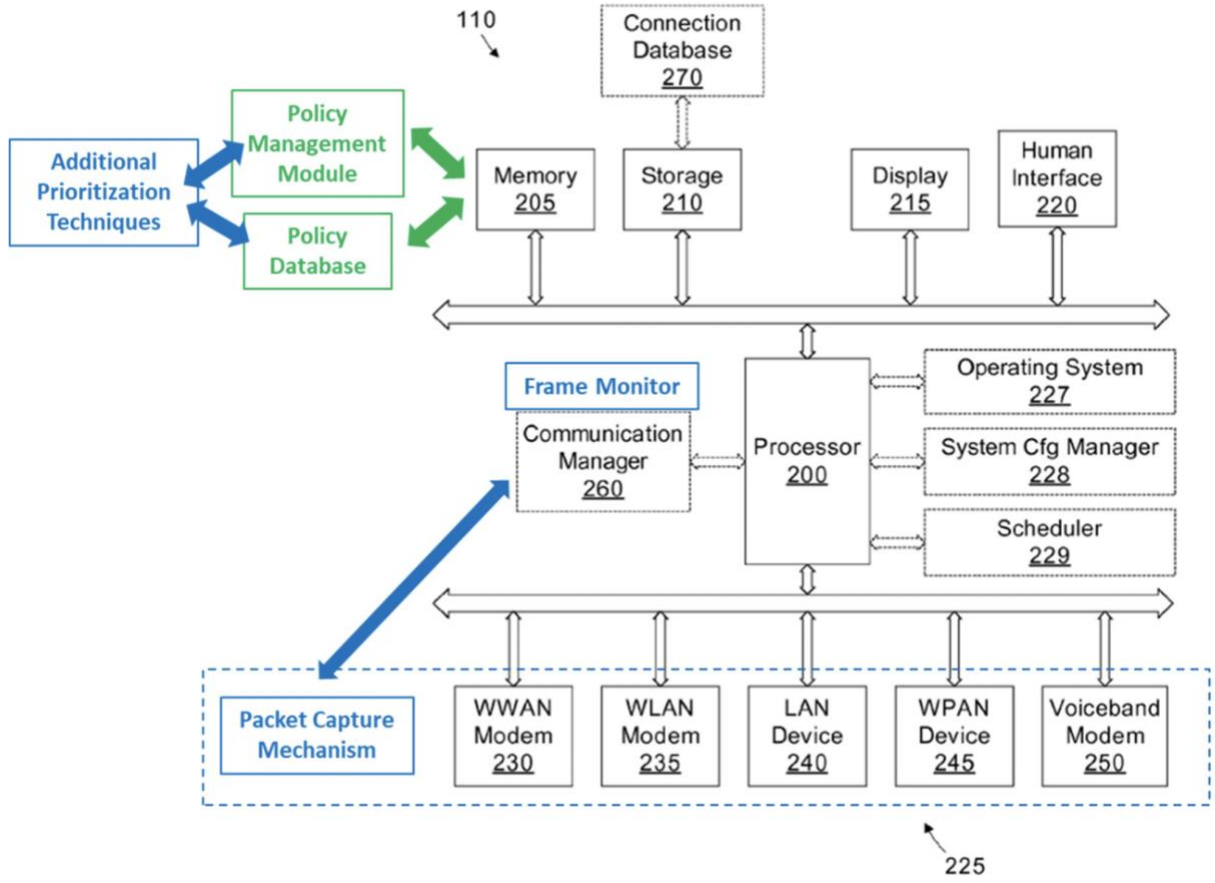
### A. The Petition concedes that the prior art does not disclose the limitations the Examiner found to be novel over the prior art of record.

As explained in Section II.B, the Examiner previously concluded that the prior art of record did not disclose limitations [1.5] and [1.6] of the ’224 Patent.

Limitation [1.5] of the ’224 Patent recites: “associate each given one of the [monitored] network service usage activities with a service usage control policy dynamically selected from the set of service usage control policies, based on the first classification of the given network service usage activity and at least one device state.” Ex. 1001 at 107:57-62. In other words, based on the classification of network service usage activities (which are “monitored” in limitation [1.3]) and a device

state, a processor must be configured to associate those network service usage activities with a dynamically-selected service usage control policy.

The Petition relies on a combination of three references to arrive at this limitation. A highly simplified visual demonstration, provided by the Petition, of the Petition's extensive modifications to Cole in its combination is reproduced below (with Cole's disclosures shown in black, and modifications alleged to be obvious in view of D'Amore and Rao shown in green and blue, respectively):




Pet. at 25 (Petition's annotations of Cole's Figure 2).

Notably, the Petition alleges that the combination of ***all three*** references is

necessary to meet limitation [1.5] as follows:

> [I]n CDR's mobile device, the packet capture mechanism and frame monitor [**from Rao**] would classify network service usage activities, based on their application, and 'associate each given one of the network service usage activities with a service usage control policy' defined in the policy management module [**from D'Amore**]. The CDR connection manager [**from Cole**] would then effectuate differential network access control according to the selected service usage control policy.

*Id.* at 45.

As shown above, the Petition relies on aspects of each of Cole, D'Amore, and Rao to allege limitation [1.5] is disclosed. Accordingly, the Petition does not allege that any prior art reference itself discloses limitation [1.5]. Instead, the Petition must show that all three references would be combined in the specific manner the Petition alleges in order to satisfy limitation [1.5], which the Examiner previously found absent from the prior art (including from family members to Cole and Rao which contain disclosures substantively identical to the teachings of Cole and Rao the Petition relies upon).

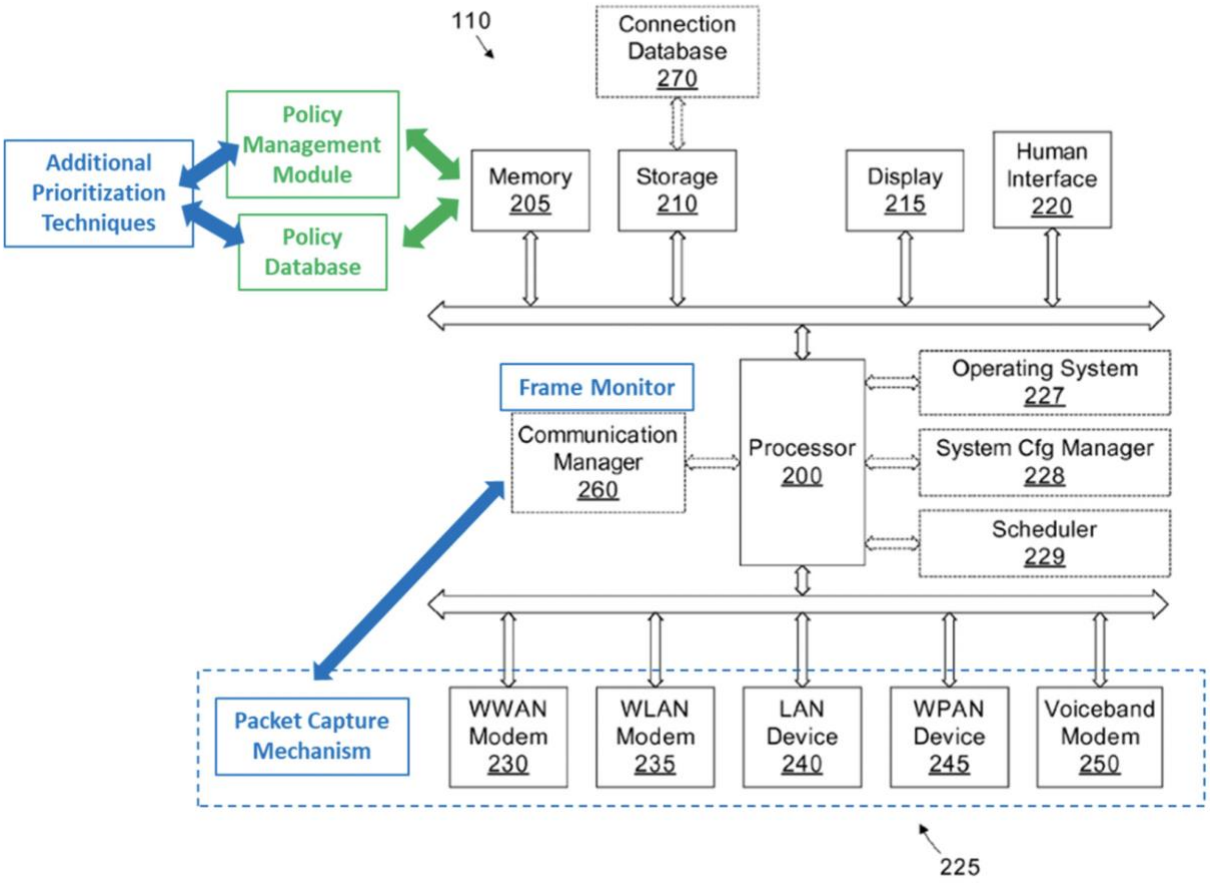
The Petition also relies on this same ***combination*** of three references to render obvious limitation [1.6], rather than alleging that any individual reference discloses or renders obvious that limitation. *See id.* at 47-48 (relying on the Cole-D'Amore-Rao, or "CDR" combination to allege invalidity of limitation [1.6]). Again, the

Petition does not allege any individual prior art reference discloses limitation [1.6], which the Examiner likewise found absent from the prior art of record, which included Cole and Rao.

In sum, the Petition concedes that the prior art does not disclose at least limitations [1.5] and [1.6] of the '224 Patent, the very limitations that the Examiner previously concluded were not disclosed by similar art.

### B. The Petition fails to establish that its combination would have been obvious.

As noted above, the Petition relies on a combination of ***three*** separate references with different purposes, different approaches, and different results to arrive at the limitations the Examiner found to be not disclosed or obvious in view of the prior art. The Petition's combination involves numerous complex modifications to Cole. For example, even as shown by the oversimplified block diagram provided in the Petition, reproduced below, the Petition introduces ***five*** additional modules to Cole's existing system, and an additional five data paths linking various modules in the system:




*Id.* at 25 (Petition's annotations of Cole's Figure 2).

While there are numerous reasons why the proposed combination would not have been obvious (including the Petition's significant oversimplification of its proposed combination), this preliminary response focuses on one particular modification: the proposed combination of Rao's packet capture mechanism to influence Cole's connection manager's scheduling and deferral of application activity.

As discussed above in Section V, Rao discloses using a "packet capture mechanism" to intercept network packets (Ex. 1007 ¶[0102]), and "the packet

capture mechanism 365 may forward the packets to … a frame monitor mechanism 360." *Id.* ¶[0104]. Rao's "frame monitor 360 may include policies and logic for applying a policy to a received packet." *Id.* ¶[0108]. Rao teaches that these policies involve communicating network packets that "are stored in a queue" "according to [a] determined priority." *Id.* ¶[0184].

Thus, Rao intercepts and monitors ***packet*** activity to influence, on a ***packet*** level of granularity, which individual packets in a queue should be passed first through a network, or alternatively be buffered or discarded. *See* Pet. at 20 ("Rao's system can 'use the policies 520 to determine which network packets to queue and/or discard.'"). In other words, Rao discloses the use of packet capture to make basic quality of service (QoS) determinations of which individual packets in a queue of packets should be transmitted, and in what order.

In contrast, the Petition proposes using Rao's packet capture mechanism for an entirely different purpose, one not disclosed in Rao itself: influencing decisions to "schedul[e] higher priority ***application tasks*** during times of network availability." *Id.* at 24. This modification would not have been obvious. For instance, Rao itself does not give any indication of how information derived from intercepted packets would allow for *any* type of "scheduling" according to network availability, much less scheduling of "application tasks" (as opposed to ordering individual

packets, which is the granularity to which Rao's policy decisions apply).[2] And the Petition fails to allege or provide evidence that either Cole or D'Amore provide any suggestion that any of their policies or logic would be enhanced by the use of packet capture information.

Indeed, the Petition provides no examples of ***any*** prior art system using a packet capture mechanism for the purpose of scheduling application tasks (as opposed to simply making QoS decisions to prioritize or discard individual packets, as taught in Rao and which was the conventional purpose of packet capture mechanisms).

Accordingly, this is ***not*** a case where the Petition's proposed combination involves "combining prior art elements ***according to known methods to yield predictable results***" or "***using known techniques*** to improve similar devices ***in the same way***." *See id.* at 21-22 (citing *KSR*, 550 U.S. at 415-21); *see also KSR*, 550

[2] A less contrived combination of Rao with Cole would have involved leaving Cole's connection manager unmodified, and adding Rao's packet prioritization techniques to influence packet-level traffic (rather than using Rao's packet capture mechanism to influence the behavior of Cole's connection manager). The Petition, however, did not propose such a combination, because such a combination would not even arguably read on the challenged claims.

U.S. at 417 ("[A] court must ask whether the improvement is more than the predictable use of prior art elements ***according to their established functions***."). Specifically, the Petition fails to provide evidence or to even allege that there ***were*** any "known methods" in the art to use intercepted packet data to schedule application tasks, and the Petition provides no evidence that making such a complex modification to Cole (which would require information derived from intercepting packets at the network layer being used to influence decisions made as applied to application tasks at the application layer) would have been in any way "predictable." Likewise, the Petition does not alleged or provide evidence that applying information about intercepted packets to schedule application tasks was a "known technique" (as the Petition provides no evidence such a technique had ever been attempted), and it certainly would not have improved Cole "in the same way" as Rao's system uses intercepted packets because the proposed modification does not use Rao's packet capture mechanism to make prioritization decisions regarding individual packets. Because the Petition proposes an entirely new way of applying Rao's packet capture mechanism for a ***different*** functionality than taught by Rao, the Petition's combination is clearly "more than the predictable use of prior art elements according to their established functions." *See KSR*, 550 U.S. at 417.

Furthermore, although the Petition alleges in hindsight that a POSITA would have been motivated to pursue the Petition's unconventional combination of Cole-

D'Amore with Rao because it would provide the benefits of "beneficially provid[ing] Cole D'Amore's system with an additional capability" and "enhanc[ing] the priority policies of the Cole-D'Amore device" (Pet. at 21), such alleged benefits do not establish obviousness. If they did, then ***every*** new beneficial application or combination of existing elements would be found obvious because of the new approach's benefits, contrary to longstanding precedent. *See KSR*, 550 U.S. at 418-19 ("[I]nventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.").

Instead, the relevant inquiry is whether a POSITA would have ***recognized***, without the benefit the '224 Patent's teachings (or the Petition's theory of invalidity that was crafted in hindsight), that Rao's packet capture mechanism could be applied to Cole and D'Amore (in a manner contrary to its established function and not suggested by the prior art) in order to achieve any of those alleged benefits. On this point, the Petition does not provide any evidence other than an expert declaration that parrots the Petition's conclusory allegations that a POSITA would have found these benefits to be obvious. *See* Pet. at 21 (citing Ex. 1003 ¶¶47-48); *see also Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper No. 9 at 15 (PTAB Aug. 24, 2022) (precedential) ("*Xerox*") (denying institution and giving "little weight" to "cited declaration testimony [that] is conclusory and unsupported" and "adds little to the

conclusory assertion for which it is offered to support"). Put simply, Petitioner's hindsight allegation that a new application of elements in an unconventional way is beneficial is not evidence that a POSITA would have ***recognized*** these benefits nearly fifteen years ago. *KSR*, 550 U.S. at 421 (stating that a "factfinder ... must be cautious of arguments reliant upon ex post reasoning").

Given that the Petition's combination plainly involves using Rao's packet capture mechanism for other than its conventional purpose, the Petition must provide some evidence that a POSITA would have had some insight as to why the use of a particular technology in an unconventional way would have been obvious. *See id.* at 417 ("[A] court must ask whether the improvement is more than the predictable use of prior art elements ***according to their established functions***."); *Adidas AG v. Nike, Inc.*, 963 F.3d 1355, 1359 (Fed. Cir. 2020) (affirming PTAB's decision not finding obviousness where a proposed modification would "change the principles under which [the prior art] operates"); *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1337 (Fed. Cir. 2005) (emphasizing "the value of combining various existing features or principles ***in a new way to achieve a new result***," and stating that such combination is "often the essence of invention"). The Petition is silent on this point.

The Petition's failure to provide evidence that a POSITA would have recognized and considered applying Rao's packet capture mechanism in a way not

disclosed by Rao (or any other art of record) is "particularly problematic in cases where, like here, expert testimony is offered not simply to provide a motivation to combine prior-art teachings, but rather to supply a limitation missing from the prior art." *Xerox* at 16. In this case, there is no evidence that anyone had ever used a packet capture mechanism such as Rao's to make scheduling decisions as applied to application tasks, as the Petition proposes. Nor is there any allegation that any prior art of record discloses limitations [1.5] or [1.6] of the '224 Patent. Thus, the functionality the Petition alleges its combination would include is entirely missing from the prior art, and the requisite evidentiary support cannot be provided with conclusory allegations grounded in hindsight. *See KSR*, 550 U.S. at 421 (stating that a "factfinder … must be cautious of arguments reliant upon ex post reasoning").

In sum, the Petition's proposed combination involves a novel combination of Cole and D'Amore with Rao, in which Rao's "packet capture mechanism" would be used not for its conventional purpose of prioritizing packet transmissions, but rather to schedule and defer processing of application tasks that access the network. The Petition provides no evidence that a POSITA at the time of the '224 Patent's invention would have even considered such an unconventional modification, much less recognized that any benefits would result from that modification. Accordingly, the proposed combination is not obvious because it does not involve a combination of "prior art elements according to their established functions." *See id.* at 417.

As explained above in Section VI.A, the Petition relies on the ***combination*** of all three of Cole, D'Amore, and Rao to allege invalidity of all challenged claims, and does not allege that any less than the combination of all three references would invalidate any claim. Accordingly, the Petition's failure to establish why Rao's packet capture mechanism would be applied in a manner different than its established function is fatal to all grounds of the Petition.

## VII. THE BOARD SHOULD EXERCISE ITS DISCRETION UNDER 35 U.S.C. § 325 (d) TO DENY INSTITUTION.

The Board "may take into account whether, and reject the Petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." 35 U.S.C. § 325(d). As the Board explained in *Advanced Bionics, LLC v. Med-El Elektromedizinische Gerate GmbH* ("*Advanced Bionics*"):

> [U]nder § 325(d), the Board uses the following two-part framework: (1) whether the same or substantially similar art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of the first part of the framework is satisfied, whether the Petition has demonstrated that the Office erred in a manner material to the patentability of the challenged claims. If a condition in the first part of the framework is satisfied and the Petition fails to make a showing of material error, the Director generally will exercise discretion not to institute inter partes review.

IPR2019-01469, Paper No. 6 at 8-9 (PTAB Feb. 13, 2020) (precedential) (footnote

omitted). "If reasonable minds can disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred in a manner material to patentability. At bottom, this framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown." *Id.* at 9.

"In evaluating whether to exercise our discretion when the same or substantially the same prior art or arguments previously were presented to the Office under section 325(d), we have weighed some common *non-exclusive* factors:

(a) the similarities and material differences between the asserted art and the prior art involved during examination;

(b) the cumulative nature of the asserted art and the prior art evaluated during examination;

(c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;

(d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relied on the prior art or Patent Owner distinguishes the prior art;

(e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and

(f) the extent to which additional evidence and facts presented in the petition warrant reconsideration of the prior art or arguments."

*Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper No. 8 at 17-18 (§ III.C.5) (PTAB Dec. 15, 2017) (informative, precedential as to § III.C.5) (italics in original). "If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art of arguments previously were presented to the Office, then factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office." *Advanced Bionics* at 10.

### A. *Advanced Bionics* Step 1 (*Becton, Dickinson* Factors (a), (b), and (d)): The same or substantially the same prior art was previously presented to the USPTO.

The Petition contains three alleged grounds of invalidity: (1) an obviousness ground based on Cole, Rao, and D'Amore (Ground 1A, for claims 1-11 and 16-17); (2) an obviousness ground based on Cole, Rao, and D' Amore in further combination with Freund (Ground 1B, only for dependent claims 13-15); and (3) an obviousness ground based on Cole, Rao, and D'Amore in further combination with Aleksic (Ground 1C, only for dependent claim 12). *See* Pet. at 1.

#### 1. Cole and Rao are cumulative of and substantially the same as nearly identical family members considered by the Examiner during prosecution.

The Petition admits that a family member of its lead reference Cole was cited during prosecution. *Id.* at 82 ("[A] family member of Cole (U.S. 2008/0080457 ('Cole-2') was cited on an IDS by the applicant.") (citing Ex. 1002 at 179, 462); *see also* Ex. 1001 at 12 (listing Cole-2 in the "References Cited" section). A comparison

of Cole (Ex. 1005) and Cole-2 (Ex. 2001) reveals very few and only minor differences in the text of the two documents—only the Abstract and three out of 155 paragraphs have any differences at all. *See* Ex. 2002. Cole and Cole-2 also have the same eleven figures. *Compare* Ex. 1005 at Figs. 1-11 *with* Ex. 2001 at Figs. 1-11.

Similarly, the Petition also admits that "a family member of Rao (PCT application WO 2006/012610A2 ('Rao-2') was cited on an IDS by the applicant." Pet. at 82 (citing Ex. 1002 at 203); *see also* Ex. 1001 at 14 (listing Rao-2 in the "References Cited" section). And again, a comparison of Rao (Ex. 1007) and Rao-2 (Ex. 2003) reveals that aside from formatting differences and some additional introductory material in Rao-2, there is no difference between these two family members—Rao-2 contains all of the same disclosures as Rao plus a small amount of additional content. *See* Ex. 2004. Rao and Rao-2 also share the same set of patent figures. *Compare* Ex. 1007 at Figs. 1-6 *with* Ex. 2003 at Figs. 1-6.

The Petition does not even mention, let alone explain, why any alleged differences between Cole and Cole-2, or between Rao and Rao-2, are relevant here. Rather, the Petition alleges that neither Cole-2 nor Rao-2 was "cited by the Examiner [in an Office Action] and there is no evidence that th[ese] reference[s] w[ere] substantively considered by the Office. Because the '224 Patent's prosecution did not involve any discussion between the applicant and the Examiner regarding the teachings of the prior art applied in this Petition, the invalidity challenge based on

the prior art asserted in this Petition is not the same as, or substantially similar to, art and arguments previously presented to the Office in connection with the '224 Patent." Pet. at 82-83. In other words, the Petition argues that citation of art on an IDS is insufficient to support denial under Section 325(d).

The Petition cites no authority for this argument, and indeed, this argument is contrary to the precedential *Advanced Bionics* decision and its progeny: "***Previously presented art includes art*** made of record by the examiner, and art provided to the Office by the applicant, such as ***on an Information Disclosure Statement (IDS)***, in the prosecution history of the challenged patent." *Advanced Bionics* at 8; *see also Ivantis, Inc. v. Sight Sciences, Inc.*, IPR2022-01530, Paper No. 14 at 17 (PTAB Mar. 27, 2023) ("[T]here is no requirement that Examiner needs to rely on a reference in a rejection during prosecution in order for the reference to be 'considered' during prosecution.").

The Petition's argument has been consistently rejected by the Board. *See, e.g.*, *Palo Alto Networks, Inc. v. Centripetal Networks, Inc.*, IPR2021-01156, Paper No. 10 at 13-14 (PTAB Jan. 24, 2022) (rejecting argument that "the first part of the *Advanced Bionics* framework is not met because [the prior art was] not substantively discussed or applied in a rejection during prosecution" because "[u]nder the Board's precedent in *Advanced Bionics*, however, '[p]reviously presented art includes . . . art provided to the Office by an applicant, such as on an [IDS]'") (quoting *Advanced*

*Bionics* at 7-8) (alterations in original); *Eyenovia, Inc. v. Sydnexus*, IPR2022-00963, Paper No. 7 at 10-11 (PTAB Nov. 8, 2022) ("*Eyenovia*") (Because "references appear in the references cited section of the [challenged] patent and were identified in Information Disclosure Statements ('IDSs') during prosecution[,] … these references were 'previously presented' for the purposes of assessing the application of discretion under 35 U.S.C. § 325(d)."); *BMW of N. Am., LLC v. Stragent, LLC*, IPR2021-00419, Paper No. 14 at 12-13 (PTAB July 19, 2021) (exercising discretion to deny institution under § 325(d) in part because relied-upon prior art was cited on an IDS), *reh'g denied*, Paper No. 21 at 5 (PTAB Mar. 21, 2022); *Vovomart (HK) Enters. Co. v. Office Kick, Inc.*, PGR2022-00048, Paper No. 14 at 9 (PTAB Jan. 12, 2013), *reh'g denied*, Paper No. 16 (PTAB Mar. 9, 2023) (same); *Microsoft Corp. v. AlmondNet, Inc.*, IPR2022-01319, Paper No. 9 at 8, 10 (PTAB Jan. 30, 2023) ("*AlmondNet I*") (same), *POP request denied*, Paper No. 13 (Mar. 24, 2023), *reh'g denied*, Paper No. 14 (PTAB Apr. 23, 2023).

Moreover, the prosecution history makes clear that the Examiner considered Cole-2 and Rao-2 because the Examiner placed a copy of the IDSs containing these references in the file history, with an electronic signature next to the statement "All references considered except where lined through," with no line through either Cole-2 or Rao-2. *See* Ex. 1002 at 179, 203; *see also, e.g.*, *Biocon Pharma Ltd. v. Novartis Pharms. Corp.*, IPR2020-01263, Paper No. 12 at 9 (PTAB Feb. 16, 2021) ("*Biocon*")

("[W]e accept that the Examiner considered [the prior art reference] because it is listed on the IDS and the Examiner signed the IDS with the statement 'all references considered except where lined through.'"); *Vital Connect, Inc. v. Bardy Diagnostics, Inc.*, IPR2023-00381, Paper No. 7 at 14 (PTAB July 11, 2023) (Because "Oster was listed in an information disclosure statement (IDS)," "appears on the face of the [challenged patent]," and "[t]he examiner also certified that he considered all references listed in the IDS 'except where lined through,' and Oster is not lined through," "[t]here can be no dispute that Oster was before the Office."); *see also id.* at 15-16 (holding the same for a family member of a reference asserted in the petition, and finding the reference asserted in the petition cumulative of the family member).

In sum, because the Cole-2 and Rao-2 were previously presented to the Office, and Cole and Rao are cumulative of Cole-2 and Rao-2, respectively, substantially the same art as Cole and Rao has already been presented to the Office.

**2. The Petition's reliance on D'Amore for certain limitations of claims 1, 4, and 11 does not change the Section 325(d) calculus.**

D'Amore is the only reference other than Cole and Rao that the Petition relies upon in Ground 1A, which challenges claims 1-11 and 16-17 of the '224 Patent, and which is the Petition's only challenge to the sole independent claim of the '224 Patent (claim 1). For claim elements [1.pre], [1.1], [1.2], and [1.7] and for claims 2,

3, 5-10, and 16-17, the Petition relies only on disclosures from Cole and/or Rao, with disclosures from D'Amore only mentioned for claim elements [1.3]-[1.6] and for claims 4 and 11. Pet. at 25-68. This portion of the preliminary response therefore only addresses the cumulative nature of D'Amore disclosures with respect to claim elements [1.3]-[1.6] and for claims 4 and 11. And as detailed below, the cited disclosures from D'Amore are substantially the same as cited disclosures from Cole and Rao, as well as disclosures from the Lim reference that the Examiner discussed in the Notice of Allowance.

**a. The D'Amore disclosures on which the Petition relies for claim element [1.3] are cumulative of and substantially similar to those it relies on from Cole.**

The only portion of claim element [1.3] on which the Petition purports to rely on D'Amore is "a network service usage activity." *Id.* at 30. In particular, the Petition alleges that Cole discloses this limitation, and that "D'Amore and Rao also provide examples of network service usage activities." *Id.* The Petition therefore admits that the disclosures from D'Amore it relies upon for this limitation are cumulative of those it relies on from its lead reference Cole, which the Examiner considered. *See supra* § VII.A.1. And comparison of the quoted portions of Cole with the quoted portions of D'Amore confirm that they are. *Compare id.* ("Cole describes '***voice-over-IP (VOIP) session[s]***,' 'surfing a website,' 'a file …download,' 'accessing [a] remote server,' and 'synchronizing files or *email*.'") (quoting Ex. 1005 ¶¶[0009],

[0033], [0080], [0088]-[0089]) *with id.* ("'***voice communication***,' '*e-mail*,' 'short message service (SMS),' 'Internet webpage services,' '***VoiP calls***'") (quoting Ex. 1006 ¶¶[0029]-[0032], [0068]).

**b. The D'Amore disclosures on which the Petition relies for claim element [1.4] are cumulative of and substantially similar to those it relies on from Cole.**

Claim element [1.4], as mapped by the Petition, is lengthy and has many subparts. *See id.* at vi. The only portions of this claim limitation for which the Petition purports to rely on D'Amore are (1) "classification for each given one of the network service usage activities," (2) "differential network access control," and (3) "until a device state change occurs." *Id.* at 37, 39-40, 43-44.

First, for the "classification for each given one of the network service usage activities" sub-limitation, the Petition alleges that both Cole and Rao disclose this limitation, in particular pointing to Cole's "background classification," i.e., "***differentiating 'background' activities from non-background activities***." *Id.* at 36-37 (citing Ex. 1005 ¶[0073]). The Petition then alleges that "***[s]imilarly***, D'Amore describes a 'system policy manager' (also referred to as the 'policy management module') that can "***delineate services … into clear priority and/or privilege levels*** and allow policy decisions to be described around such priority levels." *Id.* at 37 (citing Ex. 1006 ¶¶[0036], [0050]-[0052]) (original emphases removed and new emphasis added). In other words, the Petition alleges that both

Cole and D'Amore describe classifying a given activity based on the importance of that activity. The disclosures in paragraphs 36 and 50-52 of D'Amore cited in the Petition are therefore cumulative of and substantially the same as those cited from Cole.

Second, for the "differential network access control" sub-limitation, the Petition alleges that Cole discloses this limitation, and that "D'Amore and Rao provide ***additional examples*** of differential network access control." *Id.* at 39. Again, the Petition admits that the disclosures it is relying on in D'Amore are cumulative with those in the Petition's lead reference Cole. And comparison of the quoted portions of Cole with the quoted portions of D'Amore again confirm that they are. *Compare id* at 38 ("Cole describes that '***certain background tasks***' … ***can be 'postponed*** automatically' ….") (quoting Ex. 1005 ¶[0085]) *with id.* at 39 ("D'Amore describes that the 'policy management module' can '***approve or deny access … to a mobile device resource and/or mobile network resource*** for a mobile application' … '***based at least in part of a priority level*** or privilege code associated with the mobile application.'") (quoting Ex. 1006 ¶[0051]) (original emphases removed and new emphases added). In other words, the Petition alleges that both Cole and D'Amore disclose allocating resources to a given task based on the importance or priority of that activity. The disclosures in paragraph 51 of D'Amore cited in the Petition are therefore cumulative of and substantially the same as those

cited from Cole.

Third, for the "until a device state change occurs" sub-limitation, the Petition again alleges that Cole discloses this sub-limitation, and "that many other features described in Cole, D'Amore, and Rao associated with 'service usage control policies' would be 'device states' as these features are associated with a 'state' of the mobile device." *Id.* at 43-44 (original emphases removed). Again, the Petition admits that any disclosures on which it relies from D'Amore are cumulative of those from Cole. Indeed, here the Petition points to Cole's "power state" as disclosing this sub-limitation, further noting that changes in Cole's "power state" can be used to determine whether or not to allow postponed activities to proceed. *See id.* (citing Ex. 1005 ¶¶[0085]-[0100]). Similarly, the Petition points to D'Amore's "arbitrat[ing] access to network and/or device resources." *Id.* (citing Ex. 1006 ¶[0031]-[0033]). In other words, the Petition alleges that both Cole and D'Amore disclose determining whether or not resources are to be allocated to a given task, and further alleges that Cole discloses making that determination based on a device state. Paragraphs 31-33 of D'Amore are therefore cumulative of and substantially the same as the cited portions of Cole.

**c. The D'Amore disclosures that the Petition cites for claim element [1.5] are cumulative of and substantially the same as disclosures of the lim reference the Examiner discussed in the Notice of Allowance.**

The Petition relies on D'Amore's "policy management module" for this claim

element. *See id.* at 45 (referring to "the policy management module"). D'Amore's "policy management module" is cumulative of and substantially similar to the "policy engine" of the Lim reference (Ex. 2005), which the Examiner analyzed in the Notice of Allowance, finding that Lim does not disclose this limitation. Ex. 1002 at 31. Turning to the comparison of disclosures relating to D'Amore's "policy management module" and those relating to Lim's "policy engine," D'Amore states that it is its "**policy management module** that approves or denies access to a system resource for the mobile application *based at least on the priority level or the privilege code*." Ex. 1006 ¶[0008]. Similarly, Lim states that its "**policy engine** … *applies the policy rules supplied by the policy server to the data* to produce a consequence. A consequence may include an effect (e.g., ALLOW, DENY, evaluate another policy or set(s) of policies, query user, or call a custom effect handler) …." Ex. 2005 ¶[0262]; *see id.* ¶[0073] ("The policies are evaluated when an action is taken by a user or an application to access a document, invoke a function in an application program, or operate on application data object or fragment."); *see also id.* at Fig. 7. D'Amore's "policy management module" is therefore cumulative of and substantially similar to Lim's "policy engine."

**d. The D'Amore disclosures on which the Petition relies for claim element [1.6] are cumulative of and substantially similar to those of Cole and Lim.**

For claim element [1.6], the Petition alleges that Cole's "***defer[ring]***

***communication*** in response to certain device states, and ***allow[ing] communication*** in others through a wireless modem" meets this limitation. Pet. at 47-48 (citing Ex. 1005 ¶¶[0074]-[0100]). The Petition further alleges that "D'Amore also describes that the policy management module can ***control access to 'device resources***.'" *Id.* at 48 (citing Ex. 1006 ¶¶[0032]-[0033]). In other words, the Petition alleges that both Cole and D'Amore disclose functionality for managing access to device resources, and further alleges that Cole manages such access in response to device states. The Petition illustrates that the cited portions of D'Amore are again cumulative of and substantially the same as those it relies on from Cole.

Moreover, as explained above, Lim's "policy engine" is cumulative of and substantially similar to D'Amore's "policy management module." *See supra* § VII.A.2.c; *see also* Ex. 1002 at 31 (Examiner stating in the Notice of Allowance that Lim does not disclose claim element [1.6]).

**e. The Petition's reliance on D'Amore for certain limitations of dependent claims 4 and 11 does not counsel against denial of institution.**

As an initial matter, the Board has held that "Petitioners' citation of references not considered by Examiner solely for 'additional subject matter of certain dependent claims[] is insufficient to persuade us that exercising our discretion under 35 U.S.C. § 325(d) is inappropriate.'" *See, e.g., Miltenyi Biomed. GmbH v. Trs. of Univ. of Pa.*, IPR2022-00853, Paper No. 11 at 45 (PTAB Oct. 11, 2022) ("*Miltenyi*")

(quoting *Kayak Software Corp. v. Int'l Bus. Machs. Corp.*, CBM2016-00075, Paper No. 16 at 10 (PTAB Dec. 15, 2016) (informative)) (alteration in original), *reh'g denied*, Paper No. 18 (PTAB Feb. 17, 2023); *see also AlmondNet I* at 8, 11 (denying institution under Section 325(d) even though the Narin reference, which was not before the Examiner, was applied by the Petition for certain dependent claims, and noting that patent owner argued that "whether or not Narin discloses certain limitations of [a] dependent claim … would have made no difference to the Examiner's analysis, and it is therefore unnecessary to evaluate the questions of what Narin discloses or whether Narin was of record"). Therefore, it is of no event whether or not the Petition relies on non-cumulative disclosures from D'Amore for its analysis of claims 4 and 11. But in any event, the disclosures from D'Amore on which the Petition relies for claims 4 and 11 are cumulative of disclosures from Cole and Rao.

**(1) The D'Amore disclosures on which the Petition relies for claim 4 are cumulative of and substantially similar to those it relies on from Cole.**

Claim 4 adds the following limitation to claim 1: "wherein the set of service usage control policies further comprises a third policy that blocks data communication associated with the given network service usage activity." Ex. 1001 at claim 4. The Petition first purports to map disclosures from Cole to this limitation. Pet. at 52-53. The Petition then further alleges that "a POSITA would have also

recognized that, when applications request access to a [D'Amore] 'mobile network resource' the ***'priority level'*** of the application ***can be used to '[deny] access to the resource***,'" and further comments that "D'Amore's 'priority levels' are stored in a 'policy database.'" *Id.* at 53 (quoting Ex. 1006 ¶¶[0050]-[0052]) (second alteration in original). But the disclosures from D'Amore on which the Petition relies are cumulative of and substantially similar to those it relies on from Cole. *See id.* at 52 ("Cole describes that the connection manager can ***'block' updates … that do not meet 'defined prerequisites***.") (quoting Ex. 1005 ¶[0125]); *see also id.* ("Cole describes that additional conditions can require an activity to be blocked ('the task should be blocked unless the mobile device 110 is connect to external AC power')."") (quoting Ex. 1005 ¶[0119]).

**(2) The D'Amore disclosures on which the Petition relies for claim 11 are cumulative of and substantially similar to those of Rao.**

Claim 11 adds the following requirement to claim 1: "wherein the dynamic selection of the service usage control policy is further based on a user preference setting for given one of the applications." Ex. 1001 at claim 11. The Petition alleges that "D'Amore describes a 'configuration module' that includes a 'user input module' that allows a ***'user' to [sic] 'to modify priority level/privilege code*** of one or more applications with response to one of more system resources." *Id.* at 64 (citing Ex. 1006 ¶¶[0063]-[0070], Fig. 4) (original emphasis removed and new emphasis

added).

But the Petition fails to explain how these disclosures it relies on from D'Amore are also not cumulative of and substantially the same as those contained in Rao. *See, e.g.*, Ex. 1007 ¶[0183] ("The ***policies 520 may be configurable by a user*** by any suitable means and/or mechanism. For example, the agent 326 may provide a ***configuration mechanism such as a user interface, graphical or otherwise***, design[ed] and constructed for configuring or specifying the policies."); *see also id.* ¶¶[0182]-[0183].

**3. The Petition's reliance on Aleksic and Freund only for certain dependent claims likewise does not counsel against denial of institution.**

Because Cole, Rao, and D'Amore are the only references relied upon in the Petition's analysis of sole independent claim 1, whether or not the secondary reference Freund discloses certain limitations of dependent claims 13-15 (as the Petition alleges in Ground 1B), and whether or not the secondary reference Aleksic discloses certain limitations of dependent claim 12 (as the Petition alleged in Ground 1C), would have made no difference to the Examiner's analysis because if the independent claim is valid then so are the dependent claims. It is therefore unnecessary to evaluate the questions of what Freund and Aleksic disclose or whether Freund and Aleksic were of record. *See, e.g., Miltenyi* at 45; *AlmondNet I* at 8, 11.

Nevertheless, despite "ha[ving] the burden of proof to establish that it is entitled to the relief requested," the Petition does not even mention Aleksic or Freund in its discretionary denial section, let alone present any evidence or argument addressing whether Aleksic and Freund were before the Examiner, or why Aleksic and Freund are not otherwise substantially the same as prior art considered by the Examiner during prosecution. *See* Pet. at 81-83; *EcoFasten Solar, LLC v. Unirac, Inc.*, IPR2021-01379, Paper No. 11 at 38-39 (PTAB Feb. 8, 2022). Indeed, Aleksic was in fact considered during prosecution by the Examiner. Aleksic is listed on an IDS in the file history, with an electronic signature next to the statement "All references considered except where lined through," with no line through Aleksic. Ex. 1002 at 130; *see* Ex. 1001 at 12 (listing Aleksic in the "References Cited" section); *see, e.g.*, *Advanced Bionics* at 7-8; *Biocon* at 9.

* * *

Because the Petition relies only on references for the sole independent claim that have substantially the same relevant disclosures as references presented to the Office and considered by the Examiner, the first part of the *Advanced Bionics* framework is satisfied. *See Advanced Bionics* at 20 ("As discussed above, we determine that the 'same or substantially the same prior art' was previously presented to the Office. Accordingly, the first condition of the first part of the framework is satisfied, and we need not reach whether the 'same or substantially the

same arguments' previously were presented to the Office.").

### B. *Advanced Bionics* Step 2 (*Becton, Dickinson* Factors (c), (e), and (f)): Petitioner has made no showing of material Examiner error.

Although the Petition admits that family members of Cole and Rao were before the Examiner during prosecution, and does not identify any material differences between the family members and the references on which it relies, the Petition fails to make any non-conclusory allegations concerning Examiner material error. *See* Pet. at 81-83.

First, the Petition simply alleges that "the Challenged Claims were allowed based on the Examiner's mistaken view that the prior art failed to teach of suggest features [1.5]-[1.7]." *Id.* at 83. But "if the alleged error is a disagreement with a specific finding of record by the Office, then ordinarily the petitioner's required showing of material error must overcome persuasively that specific finding of record." *Advanced Bionics* at 10-11. Here, "Petitioner does not specifically identify any alleged mistakes made by the Examiner with respect to any of the limitations Petitioner highlights." *Microsoft Corp. v. ThroughPuter, Inc.*, IPR2022-00757, Paper No. 10 at 22 (PTAB Nov. 1, 2022) ("*ThroughPuter*"). The Petition therefore does not "overcome persuasively" the Examiner's finding that the prior art did not teach or suggest claim elements [1.5]-[1.7], particularly not in view of the fact that the Petition fails to cite for those elements any prior art disclosures that are not substantially the same as those considered by the Examiner. *See supra* §§ VII.A.1-

VII.A.2.

Second, the Petition's only other allegation concerning USPTO error is that "the Examiner's failure to consider obviousness over the uncited references asserted in this Petition constitutes material error." Pet. at 83. "Petitioner's argument that the Examiner erred simply by not considered [uncited references] is not persuasive because, under the first part of the *Advanced Bionics* framework, discretionary denial under § 325(d) may be based on presentation of art that is substantially the same as that previously presented to the Office, and is not limited to the same art previously presented." *ThroughPuter* at 21. "Although there was no rejection issued over the particular references cited in the Petition, these references were either before the Examiner … or are cumulative of references … before the Examiner. There is no evidence that suggests the Examiner overlooked the most pertinent teachings in the art presented during prosecution." *Eyenovia* at 19 (denying institution in part because the petition failed to demonstrate that the Examiner materially erred); *see also Gator Bio, Inc. v. Sartorius Bioanalytical Instruments, Inc.*, IPR2023-00215, Paper No. 19 at 21 (PTAB June 20, 2023); *supra* § VII.A.

Finally, although not necessary for the Board to exercise its discretion and deny institution under Section 325(d), the Examiner did not err. As explained in Section VI, the proposed combination would not have been obvious at least because there is no evidence that a POSITA would have thought to use Rao's packet capture

mechanism for a purpose not taught by Rao in the Cole-D'Amore combination. The weak merits of the Petition, which relies on the same or substantially the same art as was before the Examiner, is a further indication of lack of Examiner error, let alone material error.

* * *

Because the Petition presents only the same and substantially the same prior art as previously presented during prosecution, and because the Petition fails to meets its burden of showing of material error by the USPTO, Patent Owner respectfully requests that the Board exercise its discretion and deny institution under 35 U.S.C. § 325(d). *See Advanced Bionics* at 9 ("If a condition in the first part of the framework is satisfied and the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute *inter partes* review.").

## VIII. CONCLUSION

Patent Owner respectfully requests that the Board deny institution for either or both of two independent reasons. First, each of the Petition's grounds fails on the merits. Second, the Board should deny institution because the same or substantially the same prior art was presented to the USPTO during prosecution, and the Petition has failed to show any material error by the Examiner.

Date: October 24, 2023

Respectfully submitted,

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**CERTIFICATION REGARDING WORD COUNT**

Pursuant to 37 C.F.R. §42.24(d), Patent Owner certifies that there are 9,461 words in the paper excluding the portions exempted under 37 C.F.R. §42.24(a)(1).

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**CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e)(1))**

The undersigned hereby certifies that the above document was served on October 24, 2023, by filing this document through the Patent Trial and Appeal Case Tracking System as well as delivering a copy via electronic mail upon the following attorneys of record for the Petitioner:

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