

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RESMED CORP.,
Petitioner,

v.

CLEVELAND MEDICAL DEVICES, INC.,
Patent Owner.

Case IPR2025-00246
U.S. Patent No. 11,857,333

**PATENT OWNER'S REPLY TO PETITIONER'S OPPOSITION
TO PATENT OWNER'S CONTINGENT MOTION TO AMEND**

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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Intentionally Omitted
2002	Intentionally Omitted
2003	Intentionally Omitted
2004	Excerpts of Plaintiff and Counterclaim Defendant ResMed Corp.'s Initial Invalidity and Unenforceability Contentions cover pleading, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB (N.D. Ohio), served on July 15, 2024
2005	Excerpts of Defendant ResMed Inc.'s Initial Invalidity Contentions cover pleading from <i>Cleveland Med. Devices, Inc. v. ResMed, Inc.</i> , No. 22-cv-00794-JLH (D. Del.) (the "Delaware Case"), served on February 21, 2023
2006	Excerpts of Plaintiff ResMed Corp.'s Response and Affirmative Defenses to Defendant's Second Amended Counterclaims for Patent Infringement, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 1:23-cv-02221-BMB, Dkt. No. 75 (N.D. Ohio), filed on April 25, 2024
2007	Excerpts of Declaration of James Hannah in Support of Defendant CleveMed's Opposition to Plaintiff ResMed's Motion for Temporary Stay Pending Mediation, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB, Dkt. No. 87-1 (N.D. Ohio), filed on August 21, 2024
2008	Excerpts of Declaration of Lisa Kobialka in Support of Defendant CleveMed's Opposition to Plaintiff ResMed's Motion to Stay, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB, Dkt. No. 100-1 (N.D. Ohio), filed on January 24, 2025
2009	Excerpts of ResMed Corp.'s Reply in Support of its Motion to Stay, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB, Dkt. No. 101 (N.D. Ohio), filed on January 31, 2025

Exhibit	Description
2010	Excerpts of Defendant Cleveland Medical Devices, Inc.'s Memorandum in Support of its Motion to Dismiss Plaintiff's Complaint for Declaratory Judgment of Noninfringement, or to the Extent Not Granted, to Transfer, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-00500-TWR-JLB, Dkt. No. 10-1 (S.D. Cal.), filed on June 5, 2023
2011	<i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 1:23-cv-02221-BMB, Dkt. No. 87-5, Declaration of Hani Kayyali in Support of Patent Owner's Opposition to Motion to Stay Pending Mediation (N.D. Ohio), filed on August 21, 2024
2012	Excerpts of Petitioner's parent company's (ResMed) Q4 FY2024 Earnings call, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 1:23-cv-02221-BMB, Dkt. No. 87-6 (N.D. Ohio), filed on August 21, 2024
2013	Excerpts of Defendants' Initial Validity and Enforceability Contentions Pursuant to L.P.R. 3.7, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 1:23-cv-02221-BMB (N.D. Ohio), served on August 5, 2024
2014	Case Management Order, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 1:23-cv-02221-BMB, Dkt. No. 54 (N.D. Ohio), filed on January 10, 2024
2015	Excerpts of Exhibit H01 – List of Obviousness Combinations from Defendant's Supplemental Invalidity Contentions, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 1:23-cv-02221-BMB (N.D. Ohio), served on January 9, 2025
2016	M.C. Bagnato, et al., "Comparison of AutoSet and polysomnography for the detection of apnea-hypopnea events," <i>Braz. J. Med. Biol Res.</i> , vol. 33(5), May 2000

Exhibit	Description
2017	Salmi, T., et al., "Evaluation of automatic analysis of SCSB, airflow and oxygen saturation signals in patients with sleep related apneas," Chest, vol. 96, no. 2, Aug. 1989, available at https://go.gale.com/ps/i.do?id=GALE%7CA12682650&sid=google Scholar&v=2.1&it=r&linkaccess=fulltext&issn=00123692&p=AO NE&sw=w&userGr%E2%80%A6&userGr&userGroupName=anon%7E92eb47a3&aty=open-web-entry
2018	Kelly Pneumatics webpage - How Does a CPAP Machine Work? – printed on May 9, 2025
2019	Duan, Zhenhai, et al., "Push vs. Pull: Implications of Protocol Design on Controlling Unwanted Traffic" (USENIX July 7, 2005)
2020	Bunny webpage, "What is the Hypertext Transfer Protocol (HTTP)?" available at https://bunny.net/academy/http/what-is-http-hypertext-transfer-protocol/# , dated March 12, 2025
2021	Declaration of Jeffrey H. Price
2022	Declaration of Dr. David A. Borkholder in Support of Patent Owner's Response
2023	Transportation.gov webpage, "Continuous Positive Airway Pressure (CPAP) Machines," available at https://www.transportation.gov/resources/individuals/aviation-consumer-protection/assistive-device-guides/continuous-positive#:~:text=Basic , dated August 12, 2025
2024	Cleveland Clinic webpage, "CPAP Machine: What It Is, How It Works & Side Effects," available at https://my.clevelandclinic.org/health/treatments/22043-cpap-machine , dated October 24, 2025
2025	Apnea Hypopnea Index (AHI), dated December 23, 2023, available at https://www.resmed.co.in/blogs/apnea-hypopnea-index

Exhibit	Description
2026	Declaration of Alan R. Schwartz, M.D., <i>ResMed Corp. v. Cleveland Medical Devices, Inc.</i> , No. PGR2024-00012, Ex. 1020 (P.T.A.B. Dec. 13, 2023)
2027	K. Sutherland, et al., "Efficacy versus Effectiveness in the Treatment of Obstructive Sleep Apnea: CPAP and Oral Appliances," <i>Journal of Dental Sleep Medicine</i> , Vol. 2, No. 4, 2015
2028	K. Abu, et al., "Obstructive sleep apnea diagnosis and beyond using portable monitors," <i>Sleep Medicine</i> , Vol. 113, 260-274, Jan. 2024
2029	N. Ghahjaverestan, et al., "Sleep apnea severity based on estimate tidal volume and snoring features from tracheal signals," <i>J. Sleep Res.</i> , Vol. 32, No. 2, Sept. 2021
2030	Cambridge Dictionary, Definition of "into" available at https://dictionary.cambridge.org/us/dictionary/english/into , dated October 24, 2025
2031	Merriam-Webster Dictionary, Definition of "into" available at https://www.merriam-webster.com/dictionary/into , dated October 24, 2025
2032	Declaration of Dr. Michael Goodrich in Support of Patent Owner's Contingent Motion to Amend and Request for Preliminary Guidance
2033	U.S Patent Application No. 11/266,899
2034	Online Learning Platform webpage, "What is single-tier, Two-tier and Three-tier Architecture of Software?" available at https://statlearner.org/what-is-single-tier-two-tier-and-three-tier-architecture-of-software , dated July 17, 2025
2035	AlgoMaster webpage, "Client-Server Architecture," by Ashish Singh, available at https://algomaster.io/learn/system-design/client-server-architecture , dated September 8, 2025

Exhibit	Description
2036	Intentionally omitted
2037	Intentionally omitted
2038	Intentionally omitted
2039	Intentionally omitted
2040	Excerpts of Plaintiff ResMed Corp.'s Response and Affirmative Defenses to Defendant's Second Amended Counterclaims for Patent Infringement, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 1:23-cv-02221-BMB, Dkt. No. 75 (N.D. Ohio), filed on April 25, 2024
2041	Notice of Party with Financial Interest, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 1:23-cv-02221-BMB, Dkt. No. 6 (S.D. Cal.), filed on April 19, 2023
2042	ResMed Corp., Business Filing Details – Office of Minnesota Secretary of State, dated February 11, 2026, available at https://mblsportal.sos.mn.gov/Business/SearchDetails?filingGuid=f207cb20-a3d4-e011-a886-001ec94ffe7f
2043	Michael Fliss – ResMed Executive Team Bios, dated February 11, 2026, available at https://www.resmed.com/en-us/about-us/executive-team/
2044	ResMed Executive Team Bios, ResMed Webpage, dated February 11, 2026, available at https://www.resmed.com/en-us/about-us/executive-team
2045	U.S. Securities and Exchange Commission, Form 10-K for ResMed Inc. for the fiscal year ended June 30, 2025
2046	Defendant ResMed Inc.'s First Supplemental Disclosure Statement, <i>Cleveland Med. Devices, Inc. v. ResMed, Inc.</i> , No. 22-cv-00794-GBW (D. Del.), served on June 15, 2023

Exhibit	Description
2047	Plaintiff ResMed Corp.'s Initial Disclosures, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 1:23-cv-02221-BMB (N.D. Ohio), served on January 2, 2024
2048	Deposition Transcript of Jason P. Kirkness, Ph.D., <i>ResMed Corp. v. Cleveland Medical Devices, Inc.</i> , Case No. IPR2025-00247, taken on February 4, 2026
2049	Declaration of Dr. Michael Goodrich in Support of Patent Owner's Reply to Petitioner's Opposition to Patent Owner's Contingent Motion to Amend
2050	Deposition Transcript of Jason P. Kirkness, Ph.D., <i>ResMed Corp. v. Cleveland Medical Devices, Inc.</i> , Case No. IPR2025-00246, taken on February 4, 2026
2051	Deposition Transcript of Sandeep Chatterjee, Ph.D., <i>ResMed Corp. v. Cleveland Medical Devices, Inc.</i> , Case No. IPR2025-00246, taken on February 18, 2026
2052	"Information Consumer Technologies 2010," Perceptions of Libraries, 2010: Context and Community
2053	"Mobile Medical Applications – Guidance for Industry and Food and Drug Administration Staff," U.S. Dept. of Health and Human Services Food and Drug Administration, dated September 25, 2013
2054	Appsierra webpage, "Software Architecture: N Tier, 3 Tier, 1 Tier, 2 Tier Architecture," available at https://www.appsierra.com/blog/tiers-in-software-architecture#:~:text=One , dated April 1, 2024
2055	S. Zhang & M. Wang, "Server Classifications," Encyclopedia of Information Systems, Vol. 4 (2003)
2056	O. Korede, "Back to Basics: Tiers in Software Architecture," dated June 27, 2023, available at https://dev.to/skylinecodes/back-to-basics-tiers-in-software-architecture-4eg6

Exhibit	Description
2057	Deposition Transcript of Sandeep Chatterjee, Ph.D., <i>ResMed Corp. v. Cleveland Medical Devices, Inc.</i> , Nos. IPR2025-00159 and IPR2025-00160, taken on January 27, 2026
2058	I. Fette and A. Melnikov, “RFC 6455 – The WebSocket Protocol,” Internet Engineering Task Force (IETF), dated December 2011
2059	Excerpts from Introduction to Computer Security, by M. Goodrich & R. Tamassia, Pearson (2011)
2060	C. Probst, et al., “Where can an Insider Attack?” FAST 2006, LNCS 4691, pp. 127-142 (2007)
2061	L. Wolf, “Preventing Failure: The Value of Performing a Single Point of Failure Analysis for Critical Applications and Systems,” Information Systems Security, Taylor & Francis Group, Vol. 13 (2004), available at https://www.tandfonline.com/doi/abs/10.1201/1086/44119.13.1.20040301/80434.7
2062	P. Williams & A. Woodward, “Cybersecurity vulnerabilities in medical devices: a complex environment and multifaceted problem,” Dove Medical Press Limited, dated July 20, 2015, available at https://pmc.ncbi.nlm.nih.gov/articles/PMC4516335/
2063	H. Borrie, “Factors Impacting Scalability” from “Firebird Databases as the Back-end to Enterprise Software Systems,” November 28, 2006, available at https://www.firebirdsql.org/file/documentation/papers_presentations/html/paper-fbent-impacting.html

I. INTRODUCTION

The Substitute Claims have written description support and are patentable over Grounds 1-4.

The ancestral applications provide written disclosure support for a patient cell phone adjusting the PAP/CPAP therapy because statements taken together reasonably convey to a person of ordinary skill in the art (“POSITA”) support for a cell phone that enables a patient to adjust their therapy based on sensor data received by the cell phone and used to determine level of severity data that an adjustment is based on. This conclusion is substantiated by the inventor’s prosecution statements describing the disclosed inventions as allowing not only the patient but also their clinicians to adjust the therapy remotely. Ex. 1002 at 307-308.

The substitute claims are patentable over Toge and Kumar because neither discloses a patient cell phone adjusting PAP/CPAP therapy. Because the prior art does not teach this aspect of the claimed invention, ResMed relies on conclusory expert testimony to supply this missing limitation, which is neither procedurally nor legally sufficient. As another example, for the remote internet site limitation, ResMed’s only configuration articulated with any particularity is implementation of Kumar’s web server on Toge’s physician-side computer. But a POSITA would not have done so because it is not fit for a web-based application as proposed.

II. THE CONTINGENT SUBSTITUTE CLAIMS FIND WRITTEN DESCRIPTION SUPPORT IN THE ANCESTORAL APPLICATIONS AND ARE PATENTABLE OVER THE PETITION GROUNDS

A. The '899 and '715 Applications Provide Written Description Support for a Patient's Cell Phone Adjusting PAP/CPAP Therapy

U.S. Patent Appl. No. 15/641,715 ("715 application"), which the '333 Patent matured from, is a continuation-in-part of U.S. Appl. No. 11/266,899 (Ex. 2033, "'899 application"). Ex. 1001, Cover. Both applications include statements of a cell phone receiving sensor data, determining level of severity data based on the sensor data, and the patient adjusting their therapy, which "taken together" provide written description support for a patient's cell phone adjusting PAP/CPAP therapy. *Hologic, Inc. v. Smith & Nephew, Inc.*, 884 F.3d 1357, 1362-63 (Fed. Cir. 2018) (statements in the specification "[t]aken together" provide written description support); Ex. 2049, ¶¶8-16.

Each application in the priority chain describes a remote communication device, such as a cell phone, including a processor that receives sensor data from a PAP device and determines the severity of the patient's sleep disorder. '899 application at 33:14-21 (describing that sensors are "tethered to a . . . *cell phone*" and that signals from sensors are analyzed using a "*processor*" to determine the "*severity* of the subject's sleeping disorder and/or symptoms") (emphasis added); Ex. 1002 ('715 application) at 29:22-29 (similar); '899 application at 33:22-23, 34:14-21 (the "*processor*" may be "part of a *remote* communications station" that

can be a “*cell phone*”) (emphasis added); Ex. 1002 ('715 application) at 30:9-31:12 (similar). The '715 application also discloses a cell phone as an “intermediary device” that receives the sensor data from a diagnostic device linked to a treatment device. Ex. 1002 ('715 application) at 5:5-8.

Each application also describes that the patient or the physician adjusts the patient's CPAP/PAP therapy based on an output value such as the level of severity. '899 application at 38:24-39:3 (“provide an output which is then used . . . by a clinician or the subject to adjust the device”); Ex. 1002 ('715 application) at 34:20-23 (same). The '715 application further clarifies that a device can remotely program the therapy of the PAP/CPAP device. Ex. 1002 ('715 application) at 11:30-12:1.

Taken together, a POSITA would immediately discern that the patient can adjust their PAP/CPAP therapy using their cell phone because the disclosures teach that the patient can adjust the PAP therapy based on the level of severity data, which is sent to or calculated at the cell phone. This conclusion is corroborated by the inventors' statements on the disclosed inventions made during prosecution:

The present invention *allows not only the patient* but their clinicians to be aware of the efficacy of the patient's therapy as presently configured, *and to adjust or titrate the therapy efficiently, quickly and remotely.* The *determination or calculation* of these apnea events are performed on either the PAP device or *the patient's cellular phone.*

Ex. 1002 at 308 (emphasis added). At bottom, the inventors had possession of a

patient's cell phone adjusting the PAP/CPAP therapy.

ResMed's argument to the contrary is based on viewing in isolation passages for express recitation of a cell phone adjusting PAP therapy. But written description need not recite the invention *in haec verba* and is based on the disclosure as a whole. *Indivior Inc. v. Dr. Reddy's Lab's, S.A.*, 930 F.3d 1325, 1349 (Fed. Cir. 2019); *Allergan USA, Inc. v. MSN Lab's Priv. Ltd.*, 111 F.4th 1358, 1375 (Fed. Cir. 2024).

Concerning the '715 application, ResMed's allegation that "[t]here is no disclosure of the 'intermediary device' . . . [that] adjusts the PAP/CPAP therapy" is based on what the passage expressly recites. Paper 31 ("Opp.") at 3. ResMed also applies an express disclosure standard for the "remotely program[] the PAP or CPAP" and adjustment "by a clinician or the subject" passages. *Id.* at 3-4 (stating that the device that "'remotely programs' the PAP/CPAP is not disclosed or described"), 4 ("by a clinician or the subject" does not "disclose or suggest that it is a patient's cell phone"). In viewing each passage for what is expressly recited and to the exclusion as a whole, ResMed overlooks that a cell phone acting as intermediary device receives sensor data and determines a level of severity with that data used by the patient to adjust their therapy, as discussed above. These statements in the aggregate convey a patient's cell phone adjusting the therapy. Ex. 2049, ¶14.

Concerning the '899 application, ResMed performs the same faulty analysis. Opp. at 5-8. Additionally, when addressing the same "by a clinician or the subject"

passage in the '715 application, ResMed wrongly focuses on the term “diagnostic device” and whether it is a cell phone. *Id.* at 7. This is irrelevant. What is relevant is that the patient uses the output such as the level of severity to adjust their therapy and that this value is found on the patient's cell phone. *E.g.*, '899 application at 33:14-23, 34:14-21, 38:24-39:3.

B. ResMed's Use of Expert Testimony to Supply the Missing Patient's Cell Phone Adjusting the PAP/CPAP Therapy Limitation Fails Procedurally and Legally

There is no dispute that Toge and Kumar fail to disclose adjusting a PAP/CPAP therapy with the patient's cell phone. *Opp.* at 22-23; *Ex.* 2049, ¶17. The Board must reject ResMed's attempt to rely on the conclusory testimony of its experts to fill the gaps. *E.g.*, *Ex.* 2050 at 53:5-18; *Ex.* 2051 at 35:15-21, 38:22-39:23; *Ex.* 2049, ¶¶18-20.

ResMed's use of expert testimony to gap-fill the missing limitation fails as matter of procedure under the memorandum on “Enforcement and Non-Waiver of 37 C.F.R. § 42.104(b)(4) and Permissible Uses of General Knowledge in Inter Partes Reviews” (the “Memo”). Memo at 1 (expert testimony (general knowledge) “may not be used to supply a missing claim limitation”). Although the Memo applies to petitions filed after September 1, 2025, an opposition to a motion to amend effectively operates as a renewed petition as it reopens the record to introduce new art and arguments. As expressed in *Aqua Products*, “when a petitioner does contest

an amended claim, the Board is free to reopen the record to allow admission of any additional relevant prior art proffered by a petitioner.” *Aqua Prods., Inc. v. Matal*, 872 F.3d 1290, 1314 (Fed. Cir. 2017). Thus, ResMed’s Opposition as an effectively renewed petition should be subject to the Memo.

Even if the Memo does not apply, general knowledge cannot be used as a wholesale substitute for reasoned analysis and evidentiary support. *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1362 (Fed. Cir. 2016). Because this is an important limitation, ResMed’s use of general knowledge must be “supported by evidence and a reasoned explanation,” which is missing here. *Id.* at 1363 (referencing *K/S Himpp v. Hear-Wear Techs., LLC*, 751 F.3d 1362, 1365-66 (Fed. Cir. 2014)). Instead of providing evidence and reasoned explanation that this admittedly missing limitation was “unusually simple,” ResMed’s Reply merely traces the inventor’s steps and touts the benefits of CleveMed’s invention, which were only appreciable in hindsight. *Arendi*, 832 F.3d at 1362. The arguments also fail on their own.

ResMed’s argument amounts to nothing more than a bald assertion that a POSITA would have found it obvious to modify Kumar’s *patient’s* cell phone to adjust a PAP/CPAP therapy simply because that is “the same functionality that Toge’s *physician-side* cell phone possesses.” Opp. at 23 (emphasis added). That is not a reasoned argument based on underlying evidence, it is an attempt to fill in an admittedly missing limitation with conclusory expert testimony. *Id.* at 22-23.

ResMed continues by concocting a story of how “[t]he patient’s cell phone could have been utilized” once it was modified to adjust the PAP therapy, but this story does nothing more than retrace the inventor’s steps. *Id.* at 23-24. ResMed’s experts provide no evidence showing that it was known, let alone common, for a patient’s cell phone to adjust PAP therapy. Instead, their opinions are speculative and conclusory. Ex. 2051 at 39:24-40:24 (“I think a POSITA would have understood”). This lack of evidence is relevant when compared against inventors’ statements made during prosecution that “[t]here was nothing like this using cellular phones, PAP therapy, cellular systems and the Internet at the time” where “not only the patient but their clinicians [can] be aware of the efficacy of the patient’s therapy as presently configured, and to adjust or titrate the therapy efficiently, quickly and remotely.” Ex. 1002 at 308. At the time of the invention, only two percent of cell phone subscribers even had a cell phone capable of downloading software necessary for the claimed functionality. Ex. 2052 at 2.

Nor does the evidence indicate that “[a] POSITA would have been motivated” to adjust PAP therapy from the patient’s cell phone because the laundry list of benefits that ResMed were only appreciable in hindsight. Whether or not it would be faster to adjust PAP therapy from a patient’s cell phone¹ than from the physician-

¹ This, itself, is a speculative argument that ResMed does not substantiate.

side devices, ResMed has not established that faster communication was a *known* benefit of the proposed arrangement at the time of the invention. Opp. at 24. Nor has ResMed explained it believes that the patient's cell phone would be more "capable of better fine-tuning" than the physician's cell phone. *Id.* Finally, "moving the screen and controls from the PAP device itself to the patient's cell phone" (another modification not disclosed in the art) would not motivate the specific modification sought since ResMed does not contend that the "controls from the PAP device" were configured to adjust the PAP/CPAP therapy, as claimed. *Id.* at 25.

C. A POSITA Would Not Have Added to Toge's Physician-Focused System a Patient's Cell Phone Downloadable Application to Receive and Display Patient PAP Data

Toge does not disclose a patient's cell phone, and ResMed has not established that it would have been obvious to modify Toge to include a patient's cell phone that receives and displays PAP data. Ex. 2049, ¶¶21-24.

As an initial matter, ResMed misreads the claims, which recite that the subject's cell phone must "receive and display the quantified level of severity data and/or therapy efficacy data." Opp. at 18-19 ("[T]he claim does not require Petitioners to demonstrate that the Toge-Kumar combination discloses 'a patient's cell phone with downloadable first software receiving and displaying sleep data.'). Accordingly, while Claim 30 recites three options for where the therapy efficacy data may be *determined*, the claim also requires that the first software on the

subject's cell phone "receive and display" the therapy efficacy data/quantified level of severity. Paper 28 ("Mot."), App'x A at 23-24. Thus, contrary to ResMed's position, the "further provided to receive and display" limitation is a claim requirement, not a mere alternative. Opp. at 18-19.

A POSITA would not have modified Toge's system based on Kumar to arrive at the claimed invention. The alleged benefits of a smaller PAP device, adjusting parameters anywhere, later viewing of the data, and increased treatment compliance would not have prompted a POSITA make the modifications envisioned in the Opposition. Opp. at 11-14, 25. These alleged benefits require a cellular phone capable of running downloadable applications that only two percent of patient subscribers had—the rest had simple flip phones (dumb phones) capable of only voice conversation and short text messages. Because patients lacked cell phones with such capability, there would not have been a design need or market demand for ResMed's listed benefits at the relevant time frame. This is corroborated by the fact that in 2011—roughly six years after the original filing—there still existed a lack of certainty and predictability in integrating patient cellular phone applications into medical device systems. Ex. 2053 at 4.

D. A POSITA Would Not Have Modified Toge to Include a "Remote Internet Site Hosted on at Least One Server"

There is no dispute that Toge does not disclose a "remote internet site hosted on at least one server." Instead, the dispute turns on whether a POSITA would have

been motivated to configure Toge's system with a remote internet site as disclosed in Kumar. Mot. at 17-21. That answer is no. ResMed proposes two configurations, one where Kumar's web server could be implemented at "various locations" and another where Toge's physician-side computer is implemented as the web server. Ex. 2051 at 21:25-24:1; Opp. at 17 (citing Ex. 1072, ¶¶22-26). The first configuration does not even facially show how or why the Toge-Kumar combination would reach the claimed invention, and no POSITA would have hosted a web server on a client device like the physician-side computer as required for the second configuration. Ex. 2049, ¶¶25-39.

ResMed's assertion that Kumar's web server could be implemented at "various locations" in Toge's system falls short of explaining *why* a POSITA would have implemented a web server at any one of these undisclosed "various locations" and *how* such implementation would arrive at the claimed "remote internet site hosted on at least one server." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) ("[T]he petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable."); *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1368 (Fed. Cir. 2012).

While ResMed's other configuration envisions a particular location for the web server, the record shows that a POSITA would *not* have implemented Toge's physician-side computer as a web server because it is not suitable for a web-based

system in the combination. Ex. 2049, ¶¶27-28; Ex. 1072, ¶26; Ex. 2051 at 24:16-25:20 (discussing the combination's "web-based system[]"). Running web servers and clients on the same machine is "not suitable for [] web application[s]" like the one ResMed seeks to import from Kumar. Ex. 2054 at 4. Other record evidence confirms that this architecture "is rarely used today" because it cannot "take advantage of the distributed computing environment." Ex. 2055 at 4; Ex. 2056 at 3. In a co-pending IPR proceeding, Dr. Chatterjee testified that a "distributed computing environment[]" means "computing resources and functionality that's distributed and connected by a network" and "allow[s] access to data from different devices." Ex. 2057 at 20:6-20. Also, for security and performance reasons, a POSITA would not have implemented a web server and client on the same personal computer. Ex. 2049, ¶¶29-31 (citing Exs. 2059, 2060, 2061, 2062, 2063).

Apart from the above, a POSITA would not have implemented Kumar's web server, where data is transmitted only upon client request, in Toge regardless of the location. As explained in the Motion, such implementation would have interfered with Toge's purpose of pushing crucial data without request. Mot. at 20-21. More particularly, Toge's purpose of pushing data to physicians in emergencies would have been defeated with the client/server architecture of Kumar where a client (i.e., physician device) must request data using a pull mechanism. *Id.*

ResMed's assertion that "even in a pull system[] data would be effectively

'pushed' in real time" finds no support. Opp. at 17. To start, a web server push protocol did not exist at the relevant time period. Ex. 2049, ¶33. Next, the standard WebSockets protocol likewise did not exist at the relevant time period, it was introduced several years after the original filing date. Ex. 1072, ¶31; Ex. 2058; Ex. 2049, ¶¶34-36. Finally, continuously querying the server to "[i]ncreas[e] the 'pull' frequency" would not have been done because of performance issues and practicality reasons. Ex. 1072, ¶31. As Dr. Goodrich opines, continuously polling *all* of a physician's patient PAP devices to see if any of them are in an emergency situation is a significant waste of network resources and would lead to performance degradation such that the server could no longer function effectively. Ex. 2049, ¶¶37-38.

ResMed's reliance on Kumar's web server teaching also does not rectify the issue because Kumar's real-time streaming embodiment still requires the physician to log into the website to request the real-time data. Ex. 1008, ¶¶ [0091]-[0093] (disclosing a physician logged into a web page), Figs. 5 & 8. Indeed, as discussed directly above, at the time of the invention, a client had to submit pull actions to receive data from the web server. Ex. 2049, ¶39.

III. CONCLUSION

In view of the foregoing, CleveMed respectfully requests that the Board grant CleveMed's Contingent Motion.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies, in accordance with 37 C.F.R. § 42.6(e), and pursuant to agreement by the parties that filing with the Board through the P-TACTS constitutes electronic service if Patent Owner provides the foregoing document (excluding exhibits), service was made on the Petitioner as detailed below.

<i>Date of service</i>	February 25, 2026
<i>Manner of service</i>	Electronic Filing and Electronic Mail (PH-ResMed-CleveMed@paulhastings.com)
<i>Documents served</i>	PATENT OWNER'S REPLY TO PETITIONER'S OPPOSITION TO PATENT OWNER'S CONTINGENT MOTION TO AMEND
<i>Persons Served</i>	Paul Hastings LLP Lisa K. Nguyen David M. Tennant Grace Wang Eric E. Lancaster Howard Herr Kamilah Alexander Maksim Mints Rachel Wu Hankinson

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