

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RESMED CORP.,
Petitioner,

v.

CLEVELAND MEDICAL DEVICES, INC.,
Patent Owner.

Case IPR2025-00159
U.S. Patent No. 11,375,921

PATENT OWNER'S SUR-REPLY

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. THE CHALLENGED CLAIMS ARE PATENTABLE	1
A. Toge Alone or in View of Kumar Does Not Disclose the Claimed “Remote Internet Site” (All Challenged Claims).....	1
1. The Challenged Claims are Patentable over Toge Alone Because It Was Not “Well Known” to Run a Remote Internet Site from a Physician’s Computer.....	1
2. A POSITA Would Not Have Found It Obvious to Add a Kumar’s Web Server to Toge’s Physician-Side Computer	4
a) Toge in View of Kumar Does Not Teach the Claimed “Remote Internet Site”	4
b) ResMed’s Purported Motivations to Combine are Generic and Do Not Support the Proffered Combination	12
B. Toge Alone or in View of Kumar Does Not Render Obvious “Retransmit[ing] a Data” to the “Remote Internet Site” (Claim 1).....	14
1. Toge Alone Does Not Disclose a Cell Phone or PDA That Receives PAP Data from a PAP Device Retransmits the PAP Data to a Remote Internet Site.....	14
2. Toge in View of Kumar Does Not Disclose a Cell Phone or PDA That Receives PAP Data from a PAP Device Retransmits the PAP Data to a Remote Internet Site	16
C. Toge Alone or in View of Kumar Does Not Render Obvious “Retransmit[in] Data From the “Remote Internet Site” to the “Cell Phone/PDA” (Claim 7)	18

1.	“Retransmit” is Distinct From “Transmit”	19
2.	Toge’s Physician-Side Computer as a Web Server Would Not “Retransmit” Data Under the Proper Construction	22
D.	Toge Alone or in View of Kumar Does Not Render Obvious the Independent Transfer of PAP Data (Claim 12).....	23
III.	CONCLUSION.....	24

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.</i> , 694 F.3d 1312 (Fed. Cir. 2012)	5, 12
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<i>Virtek Vision Int'l ULC v. Assembly Guidance Sys., Inc.</i> , 97 F.4th 882 (Fed. Cir. 2024)	2
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37 C.F.R. § 42.104(b)(3)-(4)	18, 19, 24

PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Duan, Zhenhai, et al., “Push vs. Pull: Implications of Protocol Design on Controlling Unwanted Traffic” (USENIX July 7, 2005)
2002	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
2003	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
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 Counterclaims for Patent Infringement, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB, Dkt. No. 66 (N.D. Ohio), filed on March 18, 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

Exhibit	Description
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
2010	Excerpts of Defendant Cleveland Medical Devices, Inc.'s Memorandum in Support of its Motion to Dismiss or 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	<i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 1:23-cv-02221-BMB, Dkt. No. 87-6, excerpts of Petitioner's parent company's (ResMed) Q4 FY2024 Earnings call (N.D. Ohio), filed on August 21, 2024
2013	"Reexamination Operational Statistics," last updated June 2024, available at https://www.uspto.gov/learning-and-resources/statistics/reexamination-information , last visited on January 24, 2024
2014	Excerpts from American Inventors Protection Act of 1999, H.R. Rep. No. 106-287, Part 1 (Aug. 1999)
2015	Declaration of Dr. Michael T. Goodrich in Support of Patent Owner's Response
2016	Declaration of Dr. David A. Borkholder in Support of Patent Owner's Response
2017	Excerpts from Introduction to Computer Security, by M. Goodrich & R. Tamassia, Pearson (2011)
2018	Deposition Transcript of Sandeep Chatterjee, Ph.D., <i>ResMed Corp. v. Cleveland Medical Devices, Inc.</i> , Case No. IPR2025-00159 and IPR2025-00160, taken on September 8, 2025

Exhibit	Description
2019	Deposition Transcript of Jason P. Kirkness, Ph.D., <i>ResMed Corp v. Cleveland Medical Devices, Inc.</i> , Case No. IPR2025-00159 and IPR2025-00160, taken on August 28, 2025
2020	S. Zhang & M. Wang, "Server Classifications," Encyclopedia of Information Systems, Vol. 4 (2003)
2021	Online Learning Platform, "What is single-tier, Two-tier and Three-tier Architecture of Software?" dated July 17, 2025, available at https://statlearner.org/what-is-single-tier-two-tier-and-three-tier-architecture-of-software
2022	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
2023	Brooke, "Client vs Server Code in Anvil," dated September 3, 2025, available at https://anvil.works/articles/client-vs-server
2024	AlgoMaster webpage, "Client-Server Architecture," by Ashish Singh, dated September 8, 2025, available at https://algomaster.io/learn/system-design/client-server-architecture
2025	G. Mwamba, et al., "Architectural Review of Client-Server Models," International Journal of Scientific Research & Engineering Trends, Vol. 10, Issue 1 Jan-Feb-2024
2026	C. Probst, et al., "Where can an Insider Attack?" FAST 2006, LNCS 4691, pp. 127-142 (2007)
2027	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

Exhibit	Description
2028	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/
2029	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
2030	LibreTexts Engineering, “11.3: Two-tier and Three-tier Architectural Distinctions,” printed July 15, 2025, available at https://eng.libretexts.org/Courses/Delta_College/Introduction_to_Data_base_Systems/11%3A_Client_Server_Architecture/11.03%3A_Two-tier_and_Three-tier_Architectural_Distinctions
2031	GeeksforGeeks webpage, “Difference Between Two-Tier and Three-Tier Database Architecture,” dated July 15, 2025, available at https://www.geeksforgeeks.org/dbms/difference-between-two-tier-and-three-tier-database-architecture/
2032	G. Huston, “Anatomy: A Look Inside Network Address Translators,” The Internet Protocol Journal, Vol. 7, No. 3, September 2004
2033	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

I. INTRODUCTION

The Board should confirm the patentability of the Challenged Claims because the parties agree that Toge does not disclose the claimed “remote internet site,” and ResMed’s argument that a POSITA would have been motivated to host a “remote internet site” on a physician’s personal computer violates common sense and contradicts the record evidence. Even assuming that a POSITA would have been motivated to implement a web server on a physician’s computer, ResMed has failed to demonstrate that Toge alone or as modified by Kumar discloses the “retransmitting” limitations of Claims 1 and 7 or the independent delivery limitations of Claim 12.

II. THE CHALLENGED CLAIMS ARE PATENTABLE

A. Toge Alone or in View of Kumar Does Not Disclose the Claimed “Remote Internet Site” (All Challenged Claims)

1. The Challenged Claims are Patentable over Toge Alone Because It Was Not “Well Known” to Run a Remote Internet Site from a Physician’s Computer

The Board should confirm the patentability of the Challenged Claims over Toge alone because Toge does not disclose a “remote internet site,” and ResMed has not demonstrated that running a web server *on a physician’s computer* was a “well-known design option.” Reply at 1.

Whether or not web servers provide a “common way” “to access [patient] data transmitted over the internet,” it does not follow that it was well known to run a web

server on a physician's client computer (which is the modification to Toge that allegedly reads on the Challenged Claims). *Id.* at 1-2. The question, therefore, is not merely whether "it would have been obvious for a POSITA to modify the Toge system to include a 'remote internet site,'" as argued in the Reply, it is whether it would have been obvious to modify Toge's system to include a "remote internet site" on a ***physician's client computer***, and ResMed has not introduced any evidence that such an arrangement was ***known***, let alone well-known. *Id.* at 1-3 (citing Ex. 1005 at ¶ 146, Ex. 1003 at ¶ 214); POR at 12-13 (citing Ex. 1005 at ¶ 146, Ex. 1003 at ¶ 214).

In this light, ResMed's attempt to rely on a design choice rationale to cure Toge's admitted deficiencies fails as a matter of law because it has not established that running a web server on a physician's computer was one of "a finite number of identified, predictable solutions." *Virtek Vision Int'l ULC v. Assembly Guidance Sys., Inc.*, 97 F.4th 882, 887-88 (Fed. Cir. 2024) (quoting *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007)). As in *Virtek*, the mere fact web servers were known in the art is insufficient "as a matter of law" to demonstrate that it would have been obvious to modify Toge ***as alleged*** in the Petition and Reply. *Id.* at 888 ("There was no evidence that there are a finite number of identified, predictable solutions In short, this case involves nothing other than an assertion that because two coordinate systems were disclosed in a prior art reference and were therefore 'known,' that

satisfies the motivation to combine analysis. That is an error as a matter of law. It does not suffice to simply be known. A reason for combining must exist.”).

Similarly, ResMed has not established motivation to run a web server on the physician's client computer merely because “Toge discloses using the internet.” Reply at 2 (alleging that because “Toge discloses using the internet” it would have “immediately motivated a POSITA to implement the same protocols . . . to access the data”). Even if a POSITA would have found it advantageous to implement a web server *somewhere* in Toge's system, it does not follow that a POSITA would have “implemented a particular configuration of a ‘remote internet site’ using Toge's physician-side computer as a web server.” *Id.* at 2; see POR at 13 (citing Ex. 2016 at ¶¶ 44-50).

Finally, ResMed's assertion that “the Petition outlines numerous motivations” is not applicable to arguments concerning Toge alone. Reply at 2. Those alleged motivations concern ResMed's arguments concerning Toge in view of Kumar. Pet. at 49 (citing Ex. 1005 at ¶ 147); *id.* at 15 (alleging reasons why a “POSITA would have been motivated to combine the teachings of Toge and Kumar”). For the reasons discussed below, these alleged motivations *also* fail to support ResMed's proposed combination. § II.A.2, *infra*.

2. A POSITA Would Not Have Found It Obvious to Add a Kumar's Web Server to Toge's Physician-Side Computer

The Board should also confirm the patentability of the Challenged Claims because Kumar also does not disclose or suggest hosting such a web server on a client computer, such Toge's physician-side computer. POR at 14; Reply at 3-4. ResMed's Reply fails to articulate any reason why a POSITA would have been motivated to run a web server on the physician's computer, which is a sufficient basis for the Board to find that ResMed has not met its burden in this case. In any event, ResMed's arguments attempting to rebut the many reasons a POSITA **would not** have run a web server on the physician's computer are meritless.

a) Toge in View of Kumar Does Not Teach the Claimed "Remote Internet Site"

The Board should confirm the patentability of the Challenged Claims over Toge in view of Kumar because ResMed has not demonstrated that it would have been obvious to "implement[] Toge's physician-side computer as a web server." Reply at 4; *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) ("[O]bviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention.").

The question here is not whether there may be motivation to combine some teachings of Kumar with some teachings of Toge, it is whether a POSITA would

have been motivated to combine those teachings “in the way the claimed invention does.” *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012). Thus, as ResMed correctly notes, “PO takes issue with the implementation of Toge’s physician-side computer as a web server,” which is the combination of teachings that allegedly reaches the Challenged Claims. Reply at 4 (citing POR at 14). The Board should confirm the patentability of the Challenged Claims because the conclusory testimony of ResMed’s declarants on this issue is inconsistent with the record evidence. See Reply at 3-4.

Instead of attempting to meet its burden to demonstrate that a POSITA would have been motivated to combine Toge and Kumar to reach the Challenged Claims, ResMed attempts to rebut the copious reasons a POSITA **would not have** had reason to run a web server on a client computer. Each of ResMed’s arguments fail for the reasons outlined below, but even if it was technically **possible** to run a web server on a client computer, that mere fact is not sufficient as a matter of law to demonstrate that a POSITA “would have been motivated to make” the combination. *Belden Inc.*, 805 F.3d at 1073.

First, a POSITA would not have modified a physician’s personal computer to operate as the web server and client because such arrangements were “not suitable for [] web application[s].” Ex. 2003 at 4; POR at 15; Reply at 4-5. One-tier client-server architectures, where the user interface, business layer, and database layer are

all accessible on the “same local drive,” are disadvantageous because clients in this architecture “cannot share information from one client machine to others.” Ex. 2003 at 4-5. Thus, just because it is possible for the client in a one-tier architecture to connect the web server using the “localhost” shorthand is irrelevant because no POSITA would have used this architecture if the purpose was to provide “broad access to data collection and analysis.” Reply at 3-4; *see also* Pet. at 16.

As Dr. Chatterjee admits, communications using the “localhost” shorthand “do[] not actually go out to the **Internet**.” Ex. 1069 at ¶ 8 (a localhost provides “communications from a client to a server” on the same computer that “**do[] not actually go out to the Internet**”) (emphasis added). If “the physician-side computer and the web server are on one machine,” the local web server would not communicate with other devices via the Internet. *Compare* Ex. 1069 at ¶ 19 with *id.* at ¶ 8. Thus, the PAP device could not send data thereto nor could other clients receive data therefrom, as only the local client browser can exchange data. Ex. 1069 at ¶ 8, Ex. 2003 at 4-5; Ex. 2020 at 4, Ex. 2022 at 4.

Accordingly, although ResMed cites Ex. 2020 for the proposition that “the client process and server process can be on the same computer,” that exhibit confirms that this architecture “**is rarely used today**” because it cannot “take advantage of the distributed computing environment.” Reply at 4-5 (citing Ex 2020

at 4) (emphasis added);¹ Ex. 2033 at 20:6-20 (“[D]istributed computing environment” means “computed resources and functionality that’s distributed and connected by a network” and “allow[s] access to data from different devices.”); Ex. 2003 at 4 (this architecture “***is not suitable for a web application***” because “it can only access data available in a single computer or server”) (emphasis added); Ex. 2022 at 4 (“[U]nlike more advanced systems, [one-tier architecture] cannot transmit information from one client machine to another.”).

ResMed’s proposal to add Kumar’s web server to Toge’s physician-side computer would, therefore, undermine the very reasons for the modification in the first place, including to provide “broad access to data collection and analysis.” Reply at 3; Ex. 2003 at 5, Ex. 2023 at 2-3, Ex. 2025 at 2-3; POR at 14-15 (explaining that for a web-based application, “the client and server are not on the same computer”) (quoting Ex. 2003 at 5). Accordingly, the Board should reject ResMed’s argument

¹ Dr. Chatterjee’s testimony pertaining to Ex. 2020 is not credible as he mixes and matches one-tier architecture (client and server on the same machine (Ex. 2020 at 4)) with two-tier architecture (“the simplest client/server architecture” in use today where client and server are on different machines (Ex. 2020 at 4)). Ex. 1069 at ¶ 7 (first parenthetical is related to the one-tier architecture; second parenthetical is related to the two-tier architecture) (citing Ex. 2020 at 4).

that it would have been obvious to run a web server on the physician-side computer because doing so would have thwarted the very benefits that Kumar's browser-based engine would have provided.

Second, ResMed's arguments concerning the security risks associated with its proposed combination fare no better because they rely on conclusory expert testimony rather than reasoned analysis and supporting evidence. Reply at 5-6; POR at 15-17. "Petitioner cannot satisfy its burden of proving obviousness by employing 'mere conclusory statements . . .'" *Activision Blizzard, Inc. v. Milestone Entm't, LLC*, No. IPR2025-00713, Paper 15 at 11 (P.T.A.B. Oct. 16, 2025) (quoting *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016)).

Dr. Goodrich testified—with reference to specific supporting evidence—that web server vulnerabilities would have demanded that the client and web server applications be on different computers. Ex. 2015 at ¶ 49 (citing Exs. 2017, 2026, 2027); *id.* at ¶ 51 (citing Ex. 2029). Instead of cross-examining Dr. Goodrich or rebutting any of the evidence he relied on to establish the security risks and performance problems associated with running a web server on a client device, ResMed presented new testimony from its expert, Dr. Chatterjee, that is either entirely conclusory or mischaracterizes the evidence relied upon.

Dr. Chatterjee asserts that the peculiar security issues arising from hosting a web server on the same device as the client can be mitigated "if the client and server

are implemented in a proper way,” but he does not identify any known “proper way” to mitigate these known risks. Reply at 5 (quoting Ex. 2018 at 15:3-7; Ex. 1069 at ¶ 15 (same)) (emphasis added). For example, Dr. Chatterjee cites a portion of a document that appears to be from a course called “Introduction to Database Systems” for the proposition that partitioning a database can make the data within that database more secure, but this database security technique is facially unrelated to the peculiar security risks attendant to running a web server on a client device. Reply at 5 (citing Ex. 1069 at ¶ 15 (citing Exs. 1071, 1072)); POR at 15-17 (citing Ex. 2015 at ¶¶ 50-51).

Caught without any answer to Dr. Goodrich’s testimony and evidence, Dr. Chatterjee just dismissed the argument. Ex. 2033 at 28:14-17 (“[Y]ou have very few, if any, vulnerabilities.”). This conclusory dismissal simply ignores evidence that web server vulnerabilities were commonplace and that the known solution to these vulnerabilities was to separate the client from the server. *E.g.*, Ex. 2017 at 372 (discussing web server vulnerabilities and the separation of client from server to “carefully control[]” interactions); Ex. 2026 at 2-3 (separating client and server to create multiple defenses against an attack). Given these issues, a POSITA would not have placed web server and client on a physician’s personal computer where a hacker could access a patient’s medical data and even *control a patient’s treatment*. POR at 15-16.

Third, Dr. Chatterjee's conclusory rebuttal to the performance issues associated with hosting a web server on a client computer suffers from the same flaws. Unable to contest the evidence, Dr. Chatterjee states in conclusory fashion that these known performance problems could be solved in different ways including "design enhancements." Reply at 6 (quoting Ex. 1069 at ¶¶ 16-17). Dr. Chatterjee does not, however, explain what "design enhancements" would address these performance issues or how "different hardware" could solve this problem. *Id.* Indeed, Dr. Chatterjee's final claim—that separating the "user layer and the database layer . . . could lead to different and potentially greater performance issues"—is not only conclusory, it contradicts undiscussed record evidence. *Compare* Reply at 6 (citing Ex. 1069 at ¶¶ 16-17) *with* Ex. 2015, Goodrich Decl., ¶ 51 (citing Ex. 2029 at 1, 3).

Finally, ResMed's proposed combination would have defeated Toge's purpose of **pushing** data to physicians in emergencies because the client/server architecture proposed in Kumar relies on a **pull** mechanism that requires the client (i.e., the physician) to request the relevant data. Reply at 6; POR at 17-20. While Dr. Chatterjee asserts that "the server could automatically push out such data," a server push protocol did not exist at the relevant time period. Ex. 1069 at ¶ 20; Ex. 2015 at ¶ 57 (testifying that because web server push protocols did not exist at the time of the invention the "web client would need to perform a data **pull** action rather

than receiving a data push from the web server”); Ex. 2016 at ¶¶ 48-49 (testifying that a “developer/network specialist [] would not have moved to a web-based application” because “[s]uch an application would have interfered with Toge’s sender-push model” for emergencies).

ResMed’s reliance on Kumar’s web server 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 (“Kumar”) at ¶¶ [0090]-[0093] (disclosing a physician logged into a web page displaying a list of patients and patient session information), Figs. 5 & 8 (depicting a physician logged into a webpage where logged information and data is available). 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. 2015 at ¶ 57.

ResMed has not established that a POSITA would have been motivated to change Toge’s system architecture if it meant giving up the ability to send physicians push notifications in the event of an emergency. *See In re Gordon*, 733 F. 2d 900, 902 (Fed. Cir. 1984) (finding a proposed modification to the prior art non-obvious because it rendered the prior art system “inoperable for its intended purpose”). Accordingly, ResMed has not established any motivation for its proposed combination of Toge and Kumar.

b) ResMed's Purported Motivations to Combine are Generic and Do Not Support the Proffered Combination

In view of the above, a POSITA would not have been motivated to implement Toge's physician-side computer as both web server and client to reach the claimed invention, and the purported benefits from Kumar are unrelated to the proposed combination. POR at 20-21 ("Petitioner's purported benefits provide nonexistent motivations" as they are either "generic," "already achieved by Toge" or introduce "technical obstacles"); Reply at 8-12 (advancing generic reasons for adding a remote internet site to Toge's system that are unrelated to its specific allegation that the remote internet site would be hosted on a physician's client computer).

First, the alleged "'core benefits' in using the internet in telemedicine" are generic and untethered to the specific combination that allegedly reads on the claims. Reply at 8-9; POR at 21 (citing *ActiveVideo Networks*, 694 F.3d at 1328 ("This testimony is generic and bears no relation to any specific combination of prior art elements.")). ResMed alleges that because of the core benefits of using the Internet in Kumar, a POSITA would have "combine[d] Toge's networked PAP system **with Kumar's remote internet.**" Reply at 8 (emphasis added). This motivation is generic and fails to support ResMed's contention that a POSITA would have been motivated to implement "Kumar's remote internet site" on Toge's physician-side computer.

Second, the alleged "convenience and efficiency" benefits associated using the Internet and secured storage (1) do not suggest implementing a web server on

Toge's physician-side device and (2) are already achieved in Toge's system. Reply at 9-11; POR at 21-22. Accordingly, while ResMed alleges that in the "combined Toge-Kumar system" data can be transmitted anywhere because of the "internet" and accessed later because of storage, Toge's system already used the Internet to transmit data and includes memory for storage without the need of a web server. Ex. 1004 ("Toge") at ¶¶ [0007], [0009]. Thus, Toge's system already achieves the same level of convenience and efficiency as alleged in the specific combination.

Finally, that Toge and Kumar could provide data access to "anyone with an Internet browser" does not support the specific combination of Toge and Kumar advanced in the Petition and Reply. Notably, for example, Kumar achieves this benefit with a typical three-tier client-server architecture, and replacing Kumar's three-tier client-server architecture with a one-tier client-server system operating on a single computer would **undermine** these benefits because one-tier architectures are "not suitable for a web application." Ex. 2003 at 4. Therefore, contrary to ResMed's conclusory assertion (Reply at 11-12), these modifications would have introduced new technical obstacles that ResMed does not acknowledge or overcome. POR at 22.

In view of the foregoing, the Board should determine that ResMed has not met its burden to demonstrate that a POSITA would have been motivated to combine modify Toge to reach the Challenged Claims.

B. Toge Alone or in View of Kumar Does Not Render Obvious “Retransmit[ing] a Data” to the “Remote Internet Site” (Claim 1)

Even assuming that a POSITA would have been motivated to run a web server on Toge's physician-side computer, the Challenged Claims are still patentable because Toge, as modified by the knowledge of a POSITA or the teachings of Kumar, does not disclose software on a cell phone or PDA that “retransmit[s]” PAP device data received from the PAP device “to the remote internet site.” POR at 23-24 (citing '921 Patent at Claim 1).

1. Toge Alone Does Not Disclose a Cell Phone or PDA That Receives PAP Data from a PAP Device Retransmits the PAP Data to a Remote Internet Site

Toge alone does not disclose a cell phone that (1) receives PAP data from a PAP device and (2) retransmits the data to a remote internet site because, as modified with the alleged “remote internet site,” the physician's mobile device would not continue to receive PAP data from the PAP device or send that data to the *client application* running on the physician-side computer, let alone to the *web server application* that would allegedly be running on the physician-side computer. *Id.* at 23-28.

ResMed's Reply does not explain why a POSITA would continue to send data directly from the PAP device to Toge's mobile device “[o]nce Toge's physician-side computer is implemented as a web server.” POR at 25. Indeed, as ResMed argued in its Petition, a POSITA allegedly would have been motivated to implement

Kumar's client-server architecture in Toge's system **because** it would obviate the need for the mobile device to “download[] specialized software” capable of interfacing directly with the PAP device. *Id.* at 25-26 (citing Pet. at 16; Chatterjee Decl. I at ¶¶ 87, 146; Chatterjee Tr. I at 26:19-27:15; Kirkness at ¶ 136; Goodrich at ¶ 64).

However, if the “specialized software” responsible for interfacing the physician's mobile phone with the PAP device is removed, as argued by Dr. Chatterjee, then the mobile phone would no longer receive data directly from the PAP device. Pet. at 15-16; Ex. 2018 at 26:19-27:5 (Dr. Chatterjee testifying that “I believe not requiring specific software . . . would be understood by one of ordinary skill to be benefits to the combined system.”). Instead, like any client in a client-server architecture, the physician's mobile phone would request data from the web server instead of receiving data from the PAP device and retransmitting it to a remote internet site, as claimed. Ex. 1003 (“Kirkness”) at ¶ 136 (“[T]he physicians and providers need not download particular software to access the data.”).

In its Reply in IPR2025-00160, ResMed similarly argued that specialized software running on the physician's mobile phone is “less advantageous” than using webpages to access data, as in the combination. IPR2025-00160, Paper 27 at 14-15 (P.T.A.B. Dec. 9, 2025) (removing the software on the physician's mobile device when distinguishing the functionality of a patient's device from the physician's).

However, “[o]nce Toge’s physician-side computer is implemented as a web server, the entire system architecture changes from one where the necessary client devices (i.e., the physician’s computer and mobile phone) receive data directly from the PAP device to one where client devices request data from the web server.” POR at 25.

For at least the foregoing reasons, Toge alone does not disclose or suggest transmitting patient sleep data to a cell phone or PDA and retransmitting that data to a remote internet site.

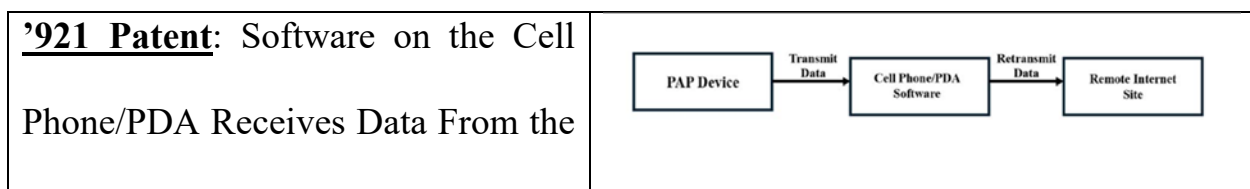
2. Toge in View of Kumar Does Not Disclose a Cell Phone or PDA That Receives PAP Data from a PAP Device Retransmits the PAP Data to a Remote Internet Site

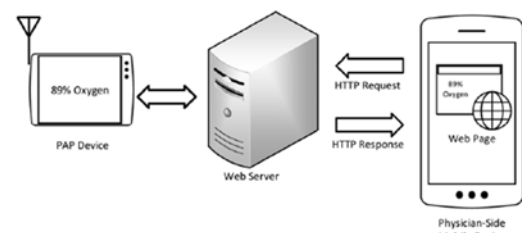
The Challenged Claims are similarly nonobvious over Toge in view of Kumar because if Toge’s physician-side computer is modified into a web server, client devices like the physician’s mobile device would request data from the web server *instead of* receiving it from the PAP device. See Section II.B.1, *supra*; Pet. at 15-16; Ex. 1005 (“Chatterjee”) at ¶¶ 87, 146; Ex. 2018, Chatterjee Tr. at 26:19-27:5; Kirkness at ¶ 136; POR at 23-25. And even if there were a reason to send data from the PAP device to the physician’s mobile phone, there is no reason for the mobile phone to retransmit the data to the web server because in ResMed’s combination, the web server receives the data directly from the PAP device.

ResMed recognizes this problem and concocts a theory whereby a “care provider” requests patient data from Kumar’s web server, annotates that data, and

then sends it back to the web server. Reply at 14-15. However, as addressed in the POR, this series of steps does not “involve **retransmissions** of data from the PAP device to the web server under any reasonable interpretation of the term.” POR at 26-27; *id.* at 27-28 (“[A]ny treatment data part of the comments/analysis is received by the client from the server upon request, not from ‘software from the first radio frequency wireless transceiver of the PAP device’ and ‘retransmit[ed]’ to the server as in the manner required by the Challenged Claim.”).

Left with no other argument, ResMed's Reply raises a belated and irrelevant claim construction argument. Reply at 14-15 (“Overall, then, the patentee appeared to contemplate that the data retransmitted to the remote internet site would be different (modified) from that originally transmitted from the PAP.”). To be clear, CleveMed's argument distinguishing the combination of Toge and Kumar does not turn on whether the data may be modified before retransmission, it turns on the fact that in the combination of Toge and Kumar, software on the physician's mobile phone does not **receive** “data related to the subject's treatment... from the first radio frequency wireless transceiver of the PAP device” or **retransmit** that data to the web server, as shown in the diagrams below:



PAP Device and Retransmits it to the Remote Internet Site	
<u>Toge+Kumar</u> : Data from the PAP device is sent to the web server. A physician requests that data from the web server and uploads notes.	 <pre>graph LR; PAP[PAP Device: 85% Oxygen] <--> WS[Web Server]; WS -- "HTTP Request" --> MD[Physician-Side Mobile Device: 85% Oxygen, Web Page]; MD -- "HTTP Response" --> WS;</pre>

Ex. 2015, ¶¶ 62, 65.

Accordingly, Claim 1 (and all claims depending therefrom) are patentable over the combination of Toge and Kumar *even granting* ResMed's belated claim construction argument. Indeed, it was ResMed's burden in the first instance to construe the claims and explain how the claims were unpatentable as properly construed. 37 C.F.R. § 42.104(b)(3)-(4). The Board should, therefore, confirm the patentability of Claims 1-6 because ResMed has not advanced any construction of "retransmit" that encompasses the scenario envisioned in ResMed's Reply.

C. Toge Alone or in View of Kumar Does Not Render Obvious "Retransmit[in] Data From the "Remote Internet Site" to the "Cell Phone/PDA" (Claim 7)

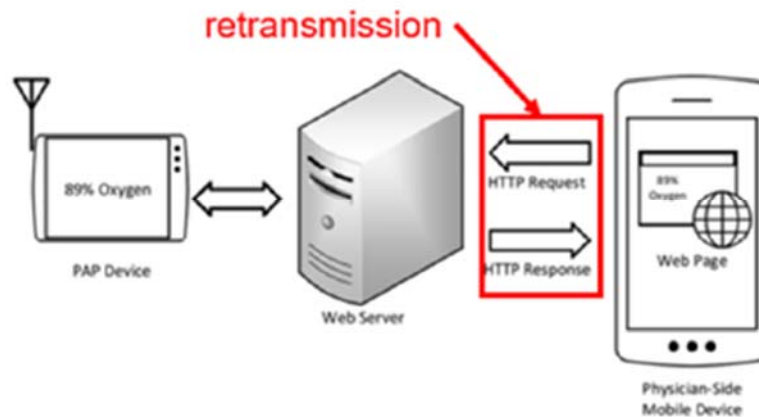
Claim 7 is patentable over Toge alone or in view of Kumar because the prior art does not disclose retransmitting data from the remote internet site to a cell phone or PDA. When Toge's physician-side computer is modified to host a web server, the web server hosts patient data that a physician can request by logging into the

relevant web page, but the web server does not “retransmit” data. Because Toge alone or in view of Kumar does not disclose retransmitting data from the remote internet site, ResMed belatedly raises a claim construction issue that misrepresents CleveMed’s position, misconstrues the claims, and does not even encompass the prior art combination.

1. “Retransmit” is Distinct From “Transmit”

The term “retransmit” is not obscure: it simply means receiving data and sending it on. POR at 32. Under this plain meaning interpretation, Claim 7 is patentable because Kumar’s web server does not receive data and send it on: it stores data for later retrieval by others. *Id.*

In Reply, ResMed purports to apply the “plain and ordinary meaning” of the term retransmit, but it does not say what that alleged plain and ordinary meaning is, as is its burden under 37 C.F.R. § 42.104(b)(3)-(4). Rather than identifying “[h]ow the challenged claim is to be construed” and explaining “[h]ow the construed claim is unpatentable under the statutory grounds,” it left that construction undefined and merely assumed that Kumar’s disclosure of transmitting data from a web server to a client device in response to an HTTP Pull Request satisfies the construction.



Reply at 17-18 (calling HTTP requests and responses “retransmission” without articulating a claim construction that supports its conclusion). The Board should confirm the patentability of claims 7-11 on this basis alone, but ResMed’s arguments addressing positions purportedly taken in the POR should also be rejected on their face.

As discussed above, CleveMed has not argued that the term retransmission “exclude[s] any processing of the retransmitted data.” Reply at 18. CleveMed’s arguments distinguishing Toge and Kumar also do not depend on any such interpretation. POR at 31-32.

ResMed also argues that CleveMed’s interpretation limits the term “retransmit . . . to automatic transmissions (device by itself transmitting data) as opposed to a transmission in response to a request.” Reply at 18. It is not clear what ResMed intends to encompass with the word “automatic,” but if it simply means “receiving data and then sending the data to another device” (POR at 32) as “opposed to a

transmission in response to a request,” then CleveMed agrees that the plain and ordinary meaning of the term is so limited.

Both experts and the specification agree with this conception of “retransmitting.” For example, during cross-examination Dr. Chatterjee acknowledged that when retransmitting, a device acts as an “intermediary” that “receives and then relays the data to another device.” Ex. 2018 at 37:17-24 (“A. That’s what I pointed out to you earlier.”); Ex. 2015 at ¶ 79; ’921 Patent at 19:35-41. And CleveMed did not “mischaracterize[]” this testimony (Reply at 20) because it never argued that “Dr. Chatterjee stated that Toge’s web server “transmit[s][the data] by itself” upon receiving a request.” *Id.* Instead, CleveMed used Dr. Chatterjee’s own claim interpretation and language to explain how Toge’s approach differs from the Challenged Claims. POR at 32 (“In this regard, Toge’s web server does not receive and send that data on to another device, it ‘transmit[s] [the data] by itself’ upon receiving a request. See Chatterjee Tr. at 38:9-39:2 (distinguishing ‘retransmit’ from ‘transmit’).”).

For at least the foregoing reasons, the Board should construe “retransmit” in accordance with its plain and ordinary meaning, which is “receiving data and then sending the data to another device.” POR at 32.

2. Toge's Physician-Side Computer as a Web Server Would Not "Retransmit" Data Under the Proper Construction

Toge's physician-side computer, as modified to host a web server, does not retransmit data under the plain and ordinary meaning of that term. POR at 32 ("receiving data and then sending the data to another device"). ResMed's arguments to the contrary do not actually apply the construction or are conclusory and contradict the record evidence. Reply at 21-22.

First, "data that are 'requested'" are **not** "still 'retransmitted'" under CleveMed's interpretation. *Id.* at 21. In the Toge-Kumar system data received at the web server is not retransmitted to the mobile device, it is stored at the web server and only sent to the mobile device in response to a request, as ResMed acknowledges. Reply at 21 (asserting that "the physician-side computer sends the PAP data in response to an HTTP request"). Thus, Toge's web server ***transmits*** that data upon request, but it does not receive data from the PAP device and send it on to the mobile device (processed or unprocessed). POR at 32.

Second, the record evidence contradicts Dr. Chatterjee's conclusory assertion that "nothing precludes the system from automatically pushing data once it has been received." Reply at 21-22; Ex. 1069 at ¶¶ 20, 26. Contrary to Dr. Chatterjee's conclusory statement, "general web push solutions" for a web server were not available "until after the priority date for the '921 Patent." Ex. 2015 at ¶ 57. Accordingly, Toge's web server would be precluded from "automatically push[ing]"

out such data” because only web pull actions existed at the critical time. Ex. 1069 at ¶¶ 20, 26. Thus, Toge’s web server could only *transmit* data in response to a pull request.

D. Toge Alone or in View of Kumar Does Not Render Obvious the Independent Transfer of PAP Data (Claim 12)

The invention recited in Claim 12 requires independently transmitting data to the cell phone and the remote internet site from the PAP device. POR at 28 (citing ’921 Patent at Claim 12). In the proposed combinations, however, the PAP device would not transfer data independently to the physician’s mobile device and the web server because in a client-server architecture like those one proposed, client devices like the physician’s mobile device are dependent on the web server. POR at 29-30.

As discussed herein and in the POR, ResMed’s combination results in the physician’s mobile device accessing data via web pages, rather than receiving data from the PAP device via specialized software. See Section II.B.2, *supra*; Pet. at 15-16; Chatterjee at ¶¶ 87, 146; Ex. 2018, Chatterjee Tr. at 26:19-27:5; Kirkness at ¶ 136; POR at 23-25. Accordingly, in this proposed combination, where the physician mobile device accesses data from the web server, the mobile phone is dependent on the web server. POR at 25 (“The entire system architecture changes from one where the necessary client devices (i.e., the physician’s computer and mobile phone) receive data directly from the PAP device to one where client devices request data from the web server.”).

This conclusion follows from Kumar's disclosure that the "entire system runs in the context of an Internet browser" where a physician accesses patient data via webpages. *See* Kumar at ¶ [0086]; *see also id.* at ¶ [0067], Figs. 1, 1A, 2-9, 22-23, 26-27, 31-40. Kumar simply does not disclose transmitting data to a web server and physician's device independently. *See, e.g.,* Kumar at ¶ [0081] (disclosing alternate data delivery methods that do not involve independent transmission to a remote internet site and mobile device). Indeed, ResMed acknowledges that a major benefit of using a web server is to avoid the need for specialized software to receive patient data. *See* Pet. at 15-16.

Accordingly, Claim 12 (and all claims depending therefrom) are patentable over the combination of Toge and Kumar ***even granting*** ResMed's belated claim construction argument. Indeed, it was ResMed's burden in the first instance to construe the claims and explain how the claims were unpatentable as properly construed. 37 C.F.R. § 42.104(b)(3)-(4). The Board should, therefore, confirm the patentability of Claims 12-16 because ResMed has not advanced any construction of the term "retransmission" that encompasses the scenario envisioned in ResMed's Reply.

III. CONCLUSION

For the reasons discussed herein and in the POR, the Board should uphold the patentability of the Challenged Claims.

Respectfully Submitted,

Date: February 3, 2026

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CERTIFICATE OF COMPLIANCE WITH 37 C.F.R. § 42.24

The undersigned hereby certifies that the portions of the above-captioned **PATENT OWNER'S SUR-REPLY** specified in 37 C.F.R. § 42.24 has 6,761 words in compliance with the 5,605 word limit set forth in 37 C.F.R. § 42.24(b)(2). This word count was prepared using the Microsoft Word word-processing system used to prepare this paper.

Dated: February 3, 2026

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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 3, 2026
<i>Manner of service</i>	Electronic Filing and Electronic Mail (PH-ResMed-CleveMed@paulhastings.com)
<i>Documents served</i>	PATENT OWNER'S SUR-REPLY
<i>Persons Served</i>	Paul Hastings LLP Lisa K. Nguyen David M. Tennant Grace Wang Eric E. Lancaster Howard Herr Kamilah Alexander Rachel Wu Hankinson

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