

遠距醫療專利新視界：5G應用情境與服務模式

New Vision of Patents for Telemedicine: 5G Application Scenarios and Service Models

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摘要

新冠肺炎（COVID-19）自 2019 年 12 月衝擊全球社會經濟，相關非接觸式診療或非接觸式照護的需求遂油然而生，另隨著 5G 通訊技術步入成熟階段，遠距醫療（Telemedicine）的相關應用可望蓬勃發展。本研究報告依據經濟部 2020/2021 產業技術白皮書中服務創新領域之智慧醫療主題，藉由近 20 年相關領域的專利布局，洞悉先進國家的技術脈絡，另以遠距醫療體系最成熟的國家，美國為例，藉由相關專利訴訟案例，進一步瞭解當企業提供相關服務時可能招致的風險，及依訴訟專利之技術功效矩陣為藍圖，期能有助於提升企業自身競爭力及進入遠距醫療的國際市場。

Abstract

Coronavirus disease (COVID-19) breakout challenge of global economic since December 2019. In this connection, as 5G communication technology has entered a mature stage, telemedicine-related applications are expected to be widely implemented. Accordingly, we perform an analysis on patent portfolio of telemedicine technology from the past 20 years based on the subjects of innovative service of smart medical care on the 2020/2021 White Paper of Ministry of Economic Affairs. In another connection, we study the current trends of telemedicine technology and patent litigation cases in certain countries, for example the United States. It expected to assist Taiwan companies on reducing the risk at the development of said technology field based on this report. As a result, enterprises may check their competitiveness before entering international market.

目 錄

壹、前言	1
貳、遠距醫療技術現況.....	3
一、台灣遠距醫療技術現況.....	3
二、美國、中國大陸、日本及韓國之遠距醫療技術現況	4
三、企業現況：以美國 Teladoc Health, Inc.為例	6
參、專利檢索與分析方法	8
一、主題技術選定	8
二、專利檢索	9
肆、專利布局分析.....	10
一、全球申請趨勢分析.....	10
二、國家/區域專利布局分析	12
三、申請人分析	13
四、國際分類號(IPC)分析	18
五、發明人分析	20
六、技術分析	21
七、台灣專利分析	23
伍、專利訴訟趨勢分析.....	25
一、美國專利訴訟分析.....	25
二、美國專利訴訟分析，以 Teladoc Health, Inc.及 Amwell 為例.....	29
陸、結論	42
柒、附件	43
一、Civil Action No. 15-cv-12274-IT United States District Court, D. Massachusetts.Am. Well Corp. v. Teladoc, Inc., 191 F. Supp. 3d 135, Decided Jun 13, 2016.	
二、Case IPR2015-00924, Teladoc, Inc. v. Am. Well Corp., Final written description 35 U.S.C. § 318 Aug 23, 2016.	
三、Case 1:20-cv-01377-UNA United States District Court, Delaware. Teladoc Health, Inc. v. Am. Well Corp., Complaint filed Oct 12, 2020.	

圖目錄

圖 1、遠距醫療體系示意	2
圖 2、Teladoc 之遠距醫療服務模式	7
圖 3、2020 至 2026 年遠距醫療全球市場預估	8
圖 4、2001 至 2020 年遠距醫療專利申請數量	10
圖 5、近 20 年遠距醫療專利主要布局國家/區域	12
圖 6、近五年主要國家/區域申請情況	13
圖 7、申請數量前十名之申請人	14
圖 8、近 10 年主要申請人之申請趨勢	15
圖 9、申請數量前十名之申請人終屬母公司	16
圖 10、近 10 年主要申請人終屬母公司之申請趨勢	17
圖 11、全球專利前 10 名的主要 IPC 分類號	18
圖 12、美國專利申請案中第一次官方回覆獲 101 核駁機率	20
圖 13、全球近 20 年遠距醫療專利領域分類情況	21
圖 14、全球近 5 年遠距醫療專利領域分類變化趨勢	22
圖 15、全球專利近 5 年 INSIGHTS 分析	22
圖 16、台灣專利申請數量前 5 名之申請人	23
圖 17、台灣專利主要 IPC 分類號	24
圖 18、台灣專利近 5 年 INSIGHTS 分析	24
圖 19、美國遠距醫療專利訴訟之管轄地點分布	26
圖 20、美國遠距醫療專利訴訟之興訟方與所提出之專利數量	27
圖 21、Teladoc 與 Amwell 訴訟事件時間軸	32
圖 22、US 7,761,185 B2 專利之第 2 圖	39
圖 23、US 7,761,185 B2 專利之第 5 圖	39
圖 24、近五年 IPR 立案與和解比例	41
圖 25、IPR 案件上訴效益統計	41

表目錄

表 1、台灣遠距醫療服務對象	4
表 2、2020 年全球前十大遠距醫療公司	6
表 3、主要國際分類號(IPC)定義	18
表 4、近 10 年前 10 大 IPC 分布情形	19
表 5、遠距醫療前三大發明人投入之主要 IPC 分類	21
表 6、興訟方前三名之技術功效矩陣列表	28
表 7、Teladoc 及 Amwell 公司資訊	30
表 8、Amwell 專利 US7,590,550B2 之爭議請求項內容(中英對照)	33
表 9、IPR2015-00924 立案資料所列證據組合	36
表 10、US 7,761,185 B2 專利簡介	38

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壹、前言

隨著醫療資源的進步，老齡化的社會已成為已開發國家的普遍現象，然而，無論是高度開發的都市或偏遠的鄉鎮，人們皆期待在需要的時候獲得即時的醫療資源，特別是在新冠肺炎（COVID-19）席捲全球而來的當下，非接觸式診療及非接觸式照護成為疫苗以外的顯學。此外，在 5G 通訊技術的逐漸成熟下，醫療相關應用也順應此趨勢而蓬勃發展。遠距醫療（Telemedicine）與我們的距離不再遙遠，對此，經濟部 2020/2021 產業技術白皮書中也對遠距醫療相關項目提供指引，諸如醫療數據開發、精準醫療、人工智慧醫療影像診斷等。在本報告中亦提到了智慧醫療技術與服務應用情境與智慧醫療資訊平台開發將會是台灣在遠距醫療的重點議題。

遠距醫療主要精神最早實現於美國 1960 年代的水星計畫（Project Mercury），當時美國太空總署（NASA）為瞭解太空人在外太空出勤時的健康狀態，與醫師團隊設計出一套即時的回報系統。另在 2010 年，世界衛生組織（WHO）發表的遠距醫療國際觀察報告中正式給出定義，其為「藉由資訊通訊科技，增加患者之醫療照護資源進而產生有益效果」^{1,2}。隨著科技的日新月異，遠距醫療已逐漸發展成一體系，如圖 1 所示遠距醫療體系，以基礎的技術層面來看，遠距醫療主要是將患者的資料交予遠方的專業醫護人員進行審視，通過其專業意見的傳遞以使患者得到醫療照護。然而，從應用層面來看，到了 1970 年，血液分析、生理體徵記錄等陸續成熟後，遠距醫療的應用開始有較多實際討論，而 2000 年後，遠距醫療才真正進入到快速發展時期。近年來，AI 演算法、5G 傳輸技術、動態偵測、行動支付、區塊鏈等技術

¹ 陸哲駒等，遠距醫療的發展與落實，台灣醫學 8 卷 6 期，2004 年 6 月，第 826 頁。

² World Health Organization, Telemedicine: Opportunities and Developments in Member States: Report on the Second Global Survey on eHealth 2009 (Global Observatory for eHealth Series, Volume 2), https://www.who.int/goe/publications/goe_telemedicine_2010.pdf (瀏覽日期:2021/5/13)。

日益純熟，衍生出遠距醫療更多可能的應用，人們開始談論的是，在遠距醫療的體系下，如何作到以人為本的關懷照護？醫事、照護人員如何在此體系下獲利並樂於提供服務？國家健康保險系統與遠距醫療間的互動關係如何維持？

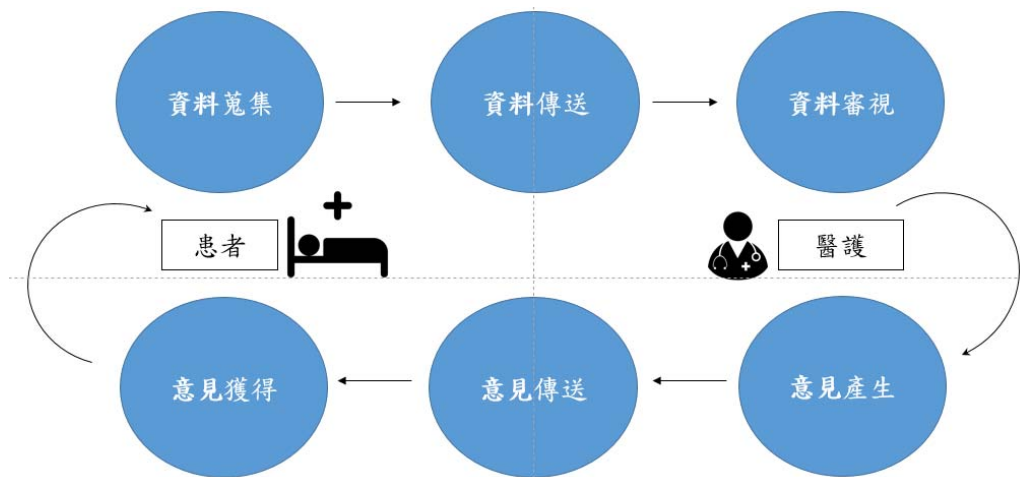


圖 1、遠距醫療體系示意³

探討前述問題前，仍要回歸到現實層面的考量，乃因遠距醫療的實現涉及到各種法規的規範配套，因此，實施遠距醫療的醫療體系必須優先符合法規的規範，再來思考如何提供相關服務。此外，投入遠距醫療的企業亦可能根據其服務而衍生的智慧財產權進行相關布局與保護，其中專利依其具有的排他性質成為企業的重要資源，同時，專利所呈現內容也能讓企業彰顯其服務的獨創性與自身技術含量，進而帶動產業的整體技術發展與加速市場活絡。

³ PSC 整理。

貳、遠距醫療技術現況

一、台灣遠距醫療技術現況

在台灣，遠距醫療所涉及的法規並非僅在於通訊診察治療辦法、醫師法、藥事法等等規範，另可能涉及個人資料保護法、醫療器材管理法⁴等規範，此外，企業依其欲提供之服務，除需符合藥商資格並取得許可證字號之外，生產製造者更需符合 ISO 規範並實施有關稽核作業，可見其門檻並非一般。現今台灣 ICT 產業技術發展雖屬成熟且全面，然而在醫療領域中的技術或產品導入上，安全性與整體服務則是唯一貼近使用者的最高指導原則。因此，跨界整合是未來趨勢，醫療界與科技業攜手合作模式也陸續出現，像是長庚紀念醫院與華碩合作⁵、中華電信與核心醫院及基層診所合作⁶等，相信在不久的將來，遠距醫療的服務內容將隨投入企業的增加而更為廣泛及多元。

近年來，人們對於遠距醫療的需求加速，例如：台灣在 2018 年 5 月由衛福部發布「通訊診察治療辦法」⁷，放寬了遠距醫療的限制，訂定出於山地、離島、偏僻地區或有特殊、急迫情形可進行通訊診療之範圍，見表 1。從 2021 年開始，遠距醫療正式被納入台灣健保給付範圍，衛福部健保署初步開放 50 個醫療資源不足鄉鎮院所申請，讓偏鄉居民有機會透過視訊會診遠方的眼科、皮膚科與耳鼻喉科醫師，並宣布未來將逐步擴大規模⁸。

⁴ 醫療器材管理法，民國 109 年 1 月 15 日。

⁵ 華碩商業採購網，長庚紀念醫院與華碩攜手以科技創新優化醫療服務，<https://smb.asus.com/case/detail/20>（瀏覽日期：2021/8/3）。

⁶ 智慧救護/遠距照護，串聯通訊與醫療專業醫療照護零距離，<https://www.cht.com.tw/home/campaign/5genterprise/CHT-Smart-EMS-Telecare.html>（瀏覽日期：2021/8/3）。

⁷ 通訊診察治療辦法，民國 107 年 5 月 11 日。

⁸ 衛福部中央健康保險署健保醫字第 1090017665 號公告，民國 109 年 12 月 29 日。

表 1、台灣遠距醫療服務對象⁹

項目	內容
一	山地離島偏僻地區。
二	急性住院病人，依既定之出院準備服務計畫，於出院後三個月內之追蹤治療。
三	機構住宿式服務類之長期照顧服務機構與醫療機構訂有醫療服務契約，領有該醫療機構醫師開立效期內慢性連續處方箋之長期照顧服務使用者，因病情需要該醫療機構醫師診療。
四	衛生機關有關家庭醫師整合性照護法令規定之病人，因病情需要家庭醫師診療。
五	衛生機關認可之遠距照護，或居家照護相關法令規定之收案對象，於執行之醫療團隊醫師診療後三個月內之追蹤治療。
六	擬接受或已接受本國醫療機構治療之非本國籍，且未參加全民健康保險之境外病人。

二、美國、中國大陸、日本及韓國之遠距醫療技術現況

為瞭解世界各國的遠距醫療現況與發展，本節就新冠肺炎疫情衝擊下的遠距醫療現況，對於美國、中國大陸、日本及韓國的遠距醫療現況與發展進行分析。

1、美國

根據美國醫院協會指出，已有 76% 以上的醫院使用遠距醫療，其中科別包括放射科、精神科、急診、病理科以及心血管科等。2019 年

⁹ 同註 7，PSC 整理。

10 月加州率先頒布醫療保險法規，內容中即闡釋遠距醫療可享有同等保障；另外在新冠肺炎疫情升溫期間，美國總統川普宣布放寬聯邦醫療保險（Medicare）中的遠距醫療服務對象¹⁰。

2、中國大陸

中國大陸在 2018 年 9 月為了要推展區域醫療資源整合及提高醫療服務能力，試行遠程醫療服務管理規範；2020 年因為新冠肺炎疫情影響更加速了該法規的推動。另根據 2020 互聯網醫院報告，目前中國大陸已有超過 20 個省級遠距醫療平台以及 500 家的互聯網醫院，其中遠距醫療問診量超過 1 億次¹¹。

3、日本

早期日本的遠距醫療尚難普及，但在新冠肺炎疫情爆發後，日本政府下令放寬了於 2015 年頒布的「醫師法」中所明定的醫師不可未親自診斷而進行治療行為及不得簽發診療證明或開立處方之限制，並於 2018 年 3 月頒布「正確實施線上診療之指南」，另針對藥局服務也採放寬方式，藥劑師收到處方藥後，能透過通訊方式指導用藥，讓病患在家中即可完成線上看診及領藥¹²。

4、韓國

類似於日本現況，韓國在新冠肺炎疫情爆發後，於 2020 年 2 月開始放寬了『醫療機關訪問診療』原則，允許在疫情期間進行通訊診

¹⁰ 台灣服務貿易商情網，美國遠距醫療現況與法規，
<https://www.taiwanservices.com.tw/internet/zh/procurementInfoDetail.aspx?item=23681&cat=1#>
（瀏覽日期:2021/9/30）

¹¹ 台灣服務貿易商情網，中國大陸(含香港)遠距醫療現況及法規，
<https://www.taiwanservices.com.tw/internet/zh/procurementInfoDetail.aspx?item=23701&cat=1>
（瀏覽日期:2021/9/30）

¹² 台灣服務貿易商情網，日本遠距醫療現況與法規，
<https://www.taiwanservices.com.tw/internet/zh/procurementInfoDetail.aspx?item=23661&cat=1>
（瀏覽日期:2021/9/30）

察治療，而未來會視疫情狀況來決定是否停止；另在 2020 年 9 月，韓國的仁荷大學醫院經韓國政府特別許可，可針對在海外的韓國人進行視訊診療。¹³

從各國遠距醫療現況與法規來看，新冠肺炎疫情加速了各國遠距醫療的發展，特別是在於對遠距醫療持保守態度的亞洲地區，因應疫情所呈現之醫療需求使政府單位被迫進行法規鬆綁，人們選擇遠距醫療的意願隨之逐漸提升，也吸引更多的企業對此類醫療商機展開多樣性與多元性規劃及服務。

三、企業現況：以美國 Teladoc Health, Inc. 為例

在美國，遠距醫療依其特有的保險給付機制衍生出極為成熟的產業文化，根據 Bizvibe 網站統計 2020 年度全球十大遠距醫療公司中有 9 個是美國公司¹⁴，如表 2，營收第一名為 Teladoc 公司，第二名為 Doctor On Demand 公司，Teladoc 公司的營收遠超出 Doctor On Demand 公司有二倍之多。

表 2、2020 年全球前十大遠距醫療公司¹⁵

排名	公司名稱	營收 (USD:millions)	總部位置
1	Teladoc	553	Purchase, New York, USA
2	Doctor On Demand	135.5	San Francisco, California, USA
3	Amwell	122.3	Boston, Massachusetts, USA
4	HealthTap	62.4	Mountain View, California, USA
5	MDLIVE	36	Miramar, Florida, USA
6	Virtuwell	12.4	St Paul, Minnesota, USA
7	PlushCare	11	San Francisco, California, USA
8	iCliniq	10	Coimbatore, Tamil Nadu, India
9	MeMD	5	Phoenix, Arizona, USA
10	LiveHealth Online	3	Indianapolis, Indiana, USA

¹³ 台灣服務貿易商情網，韓國遠距醫療現況與法規，
<https://www.taiwanservices.com.tw/internet/zh/procurementInfoDetail.aspx?item=23705&cat=1>
 （瀏覽日期:2021/9/30）

¹⁴ Top 10 Best Telemedicine Companies in the World in 2020, Top Telehealth Companies, BizVibe blog
<https://blog.bizvibe.com/blog/top-telemedicine-companies>（瀏覽日期:2021/9/29）

¹⁵ 同註 14，PSC 整理

Teladoc 公司（以下或稱“Teladoc”）於 2002 年由 G. Byron Brooks 和 Michael Gorton 在達拉斯成立，為美國最早提供遠距醫療商業模式之企業，其主要提供遠距醫療平台服務，患者隨時可藉由該平台與專業醫事從業人員進行線上問診及遠距諮詢。Teladoc 的服務模式為 B2B2C，收費方式採取訂閱制或按次收費制，公司的主要收益來自於訂閱服務¹⁶，此種服務模式成型的主因，在於美國醫療整體支出居高不下，但是對企業端或保險業者而言，提供企業員工福利與保障保險受益人權益又是必行的趨勢，具體實例，如圖 2，企業端或保險業者為其員工或保險受益人支付訂閱費用，當員工或保險受益人有醫療需求時則可至其平台提出，由 Teladoc 整合醫生資源提供遠距醫療服務。統計至 2020 年第 3 季，Teladoc 服務的會員已多達 5,100 萬人。¹⁷

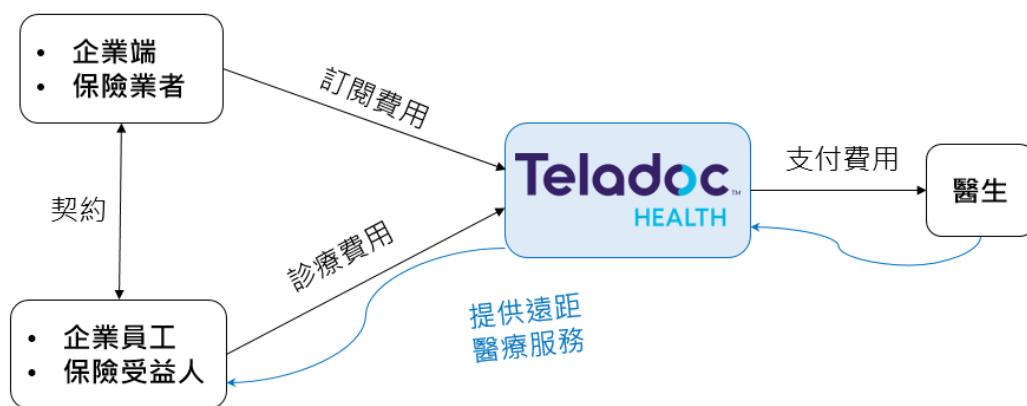


圖 2、Teladoc 之遠距醫療服務模式¹⁸

在這種模式的運作下，企業員工/保險受益人能受到更即時的醫療照護，企業端/保險業者也能降低勞工因看診所耗費之工時成本及保險金，此外，醫生更能有效率地提供專業服務並取得相對應的費用。

¹⁶ 富途資訊，高速成長的美國遠程醫療龍頭，Teladoc 將大放異彩？

https://news.futunn.com/hk/post/8378508?level=2&data_ticket=1632981497683342（瀏覽日期:2021/9/29）

¹⁷ 同註 16

¹⁸ 同註 16，PSC 整理

參、專利檢索與分析方法

為瞭解遠距醫療產業之專利布局概況，本報告擬藉由專利分析方法分析近 20 年在這產業的相關專利技術，藉以洞悉遠距醫療的技術發展脈絡。本次專利分析的流程概分為以下階段：一、主題技術選定，二、專利檢索，其中在專利檢索階段包括檢索策略擬定、檢索工具選定及分析範圍確認。

一、主題技術選定

根據 Mordor Intelligence 的調查資料顯示，遠距醫療的全球市場在 2020 年約為 382.89 億美元，且預計在 2026 年達到 1683.96 億美元，複合年均成長率（Compound annual growth rate）達 28%¹⁹，在這項調查中評估北美仍為最大市場，而亞太地區也將快速成長。

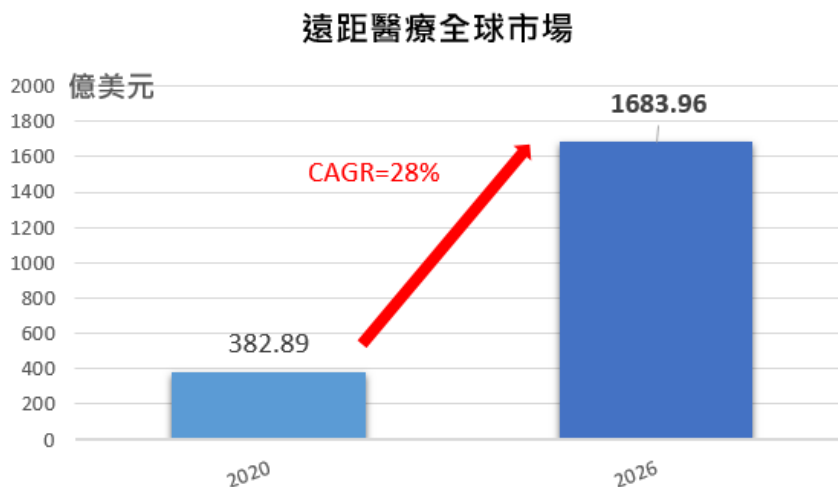


圖 3、2020 至 2026 年遠距醫療全球市場預估²⁰

針對遠距醫療市場成長的原因，除新冠肺炎疫情之外，主要還可歸因於健康照護成本的增加、科技創新的投入、遠距監控的需求提升、慢性病患者的增長等因素。此外，當世界各國努力提供人們更好的健

¹⁹ Mordor Intelligence, TELEMEDICINE MARKET - GROWTH, TRENDS, COVID-19 IMPACT, AND FORECASTS (2021 - 2026), <https://www.mordorintelligence.com/industry-reports/global-telemedicine-market-industry> (瀏覽日期:2021/9/30)

²⁰ 同註 19，PSC 整理

康照護服務時，遠距醫療所提供的解決方案有望為前述需求解套。

有鑑於此，本報告透過專利分析進一步瞭解遠距醫療於台灣及其他先進國家之發展趨勢，冀能對有興趣投入該產業的個人或企業有所助益。

二、專利檢索

1、檢索策略擬定

在選定主題技術後，擬定與本主題技術相關的 5G 應用及照護服務等關鍵字詞，包括：遠距醫療、遠距照護、遠距健康等用語作為主要關鍵字詞，其次搭配功能關鍵字詞：網路，應用或實施對象關鍵字詞：患者、醫事人員等，以該等關鍵字詞為基礎，藉以組合出適切於本次主題技術之檢索策略及檢索式。

2、檢索工具選定

檢索工具選用 Derwent Innovation (以下或稱 DI)資料庫，檢索範圍主要包括美國(以下或稱 US)、中國大陸(以下或稱 CN)、日本(以下或稱 JP)、韓國(以下或稱 KR)、歐洲(以下或稱 EP)、PCT(以下或稱 WO)及台灣(以下或稱 TW)，以布局該等國家/區域之技術相關之公開(或公告)的專利文獻為基礎進行分析。

3、分析範圍確認

為盡可能降低未公開專利所造成的干擾，以近 20 年的相關遠距醫療技術的專利文獻作為分析、評估基礎，依此，選擇申請日或優先權日介於 2000 年 1 月 1 日至 2020 年 12 月 31 日的專利文獻進行後續分析。

肆、專利布局分析

一、全球申請趨勢分析

從申請的角度檢視近 20 年遠距醫療產業於專利投入的情形，統計以最早優先權日自 2000 年 1 月 1 日至 2020 年 12 月 31 日，共有 92,352 件專利申請案，合併計 46,861 個 INPADOC 專利家族。

進一步分析前述專利申請案，如圖 4，觀察到此領域以 5 年或 6 年為一週期的整體成長趨勢，且在 2016 年到達最高峰（6,998 件申請案）；另從優先權年時間軸來看，數據顯示在 2005 年及 2011 年的申請數量都有較明顯增加情形，以該 2005 年及 2011 年的申請數量作成圓餅圖檢視申請布局的國家/區域的專利申請布局狀況，發現布局中國大陸的專利申請案數量大致上呈現一倍增長，即申請量由約占 7% 比例（235 件）增加到約占 15% 比例（725 件）。

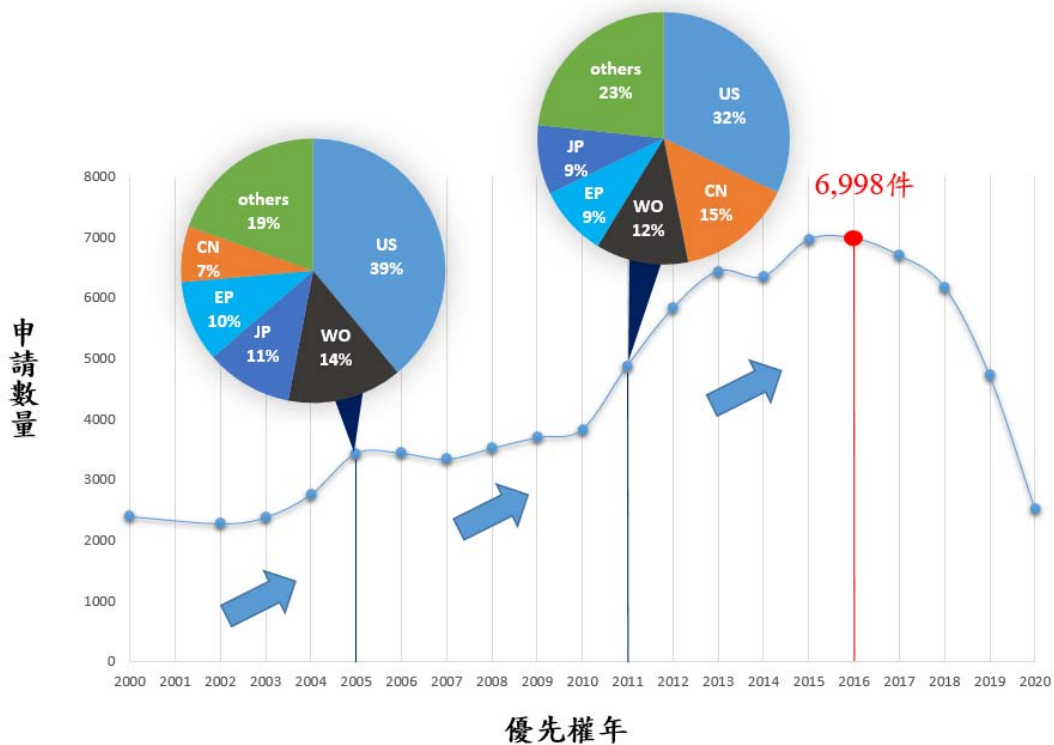


圖 4、2001 至 2020 年遠距醫療專利申請數量²¹

²¹資料來源：Derwent Innovation，PSC 整理

探究前述 2000 年至 2020 年對於智慧醫療的申請趨勢，其可能受到國際間的重大衛生政策影響，首先，歐盟於 2004 年已實施第一套的智慧醫療行動計畫，要求各會員國發展國家或區域的智慧醫療路徑圖，建立醫療服務及推動電子化病歷的使用，同年美國小布希(George W. Bush)總統亦宣布要在 10 年內廣泛地使用電子健康紀錄²²，此外，世界衛生大會（World Health Assembly, WHA）於 2005 年 5 月 23 日在瑞士日內瓦通過 eHealth 決議案，敦促會員國建立 eHealth 的發展計畫及執行重點，另世界衛生組織（World Health Organization, WHO）也提供了國家執行智慧醫療所需的基礎策略與工具。上述與電子病歷或 eHealth 相關的計畫可謂遠距醫療的前置作業，在計畫推動與施行的同時或反映至 2005 年專利申請數量的提升（3,448 件），對比 2004 年的申請數量（2,766 件），在 2005 年約增加 25%。

另一可能因素為主流市場的風向，以最早發展遠距醫療的北美市場而言，在 2011 年，美國國家健康資訊科技協調辦公室（Office of the National Coordinator for Health Information Technology, ONC）所發表的「2011-2015 年聯邦健康資訊科技策略計畫」中提及推動健康資訊與科技運用間的連結，使得健康相關資訊能透過交換獲得更有效的利用²²。到了 2014 年，美國歐巴馬總統推動可負擔健保法案（Affordable Care Act；ACA，通稱 Obama Care），該法案中闡釋了藉由穿戴式裝置來達成遠距居家醫療、復健與預防醫學等，串聯了遠距醫療中資料蒐集端與醫療服務端，有助於整體服務的成形²²。

而在亞洲區域，中國大陸從 1999 年起在地方政府積極運用專利資助政策下，使得中國大陸專利申請量於短期內呈現大幅成長的趨勢，也帶動了其在遠距醫療技術領域的崛起²²。

²²國立臺灣大學 郭年真，智慧醫療關鍵議題與對策之研究 結案報告，國家發展委員會委託研究，民國 106 年 4 月

二、國家/區域專利布局分析

為真實反映出該領域每年於各個布局國家/區域的申請情況，統計以申請日自 2000 年 1 月 1 日至 2020 年 12 月 31 日，共獲得 91,386 件取得申請號之案件。另挑選出包含台灣之 7 個主要國家/區域繪製圓餅圖以呈現出專利分布之佔比，其中美國專利（代碼 US）共 28,376 件、居次者為中國大陸專利（代碼 CN）的 17,311 件、歐洲專利（代碼 EP）與日本專利（代碼 JP）分別佔 7,897 件及 7,171 件，而韓國專利（代碼 KR）及台灣專利（代碼 TW）在該領域分別僅有 3,691 及 1,009 件，見圖 5。

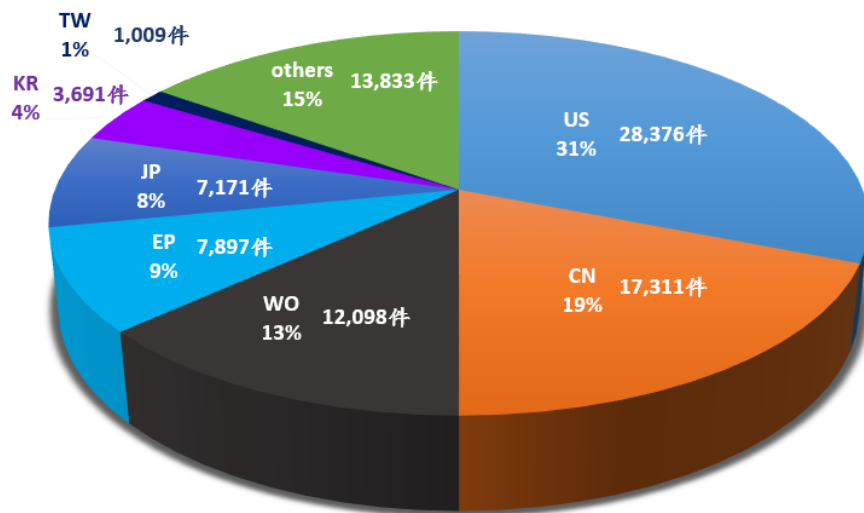


圖 5、近 20 年遠距醫療專利主要布局國家/區域²³

另進一步分析包括美國、中國大陸、世界智慧財產權組織（代碼 WO）、歐洲、日本、韓國及台灣之 7 個主要國家/區域在近 5 年的專利申請趨勢，如圖 6 所示，可觀察到美國、中國大陸在近 5 年的申請量大幅提升，相較於 2016 年，2020 年所呈漲幅分別約 36%及 58%，另世界智慧財產權組織、歐洲、日本在近 5 年亦呈漸增趨勢，而韓國

²³資料來源：Derwent Innovation，PSC 整理

與台灣則未見顯著增加。

另外，大致探討韓國及台灣在遠距醫療技術發展趨勢遲緩原因，發現韓國在電子產業與其他先進國家具有強競爭實力，然而由於韓國國內的醫師協會與民間團體的不支持態度，讓韓國在這遠距醫療領域上的發展實力並未能顯著發展²⁴。而在台灣方面，因市場較小及法規鬆綁的腳步較其他先進國家慢，或也影響申請人在這技術領域的專利布局策略。

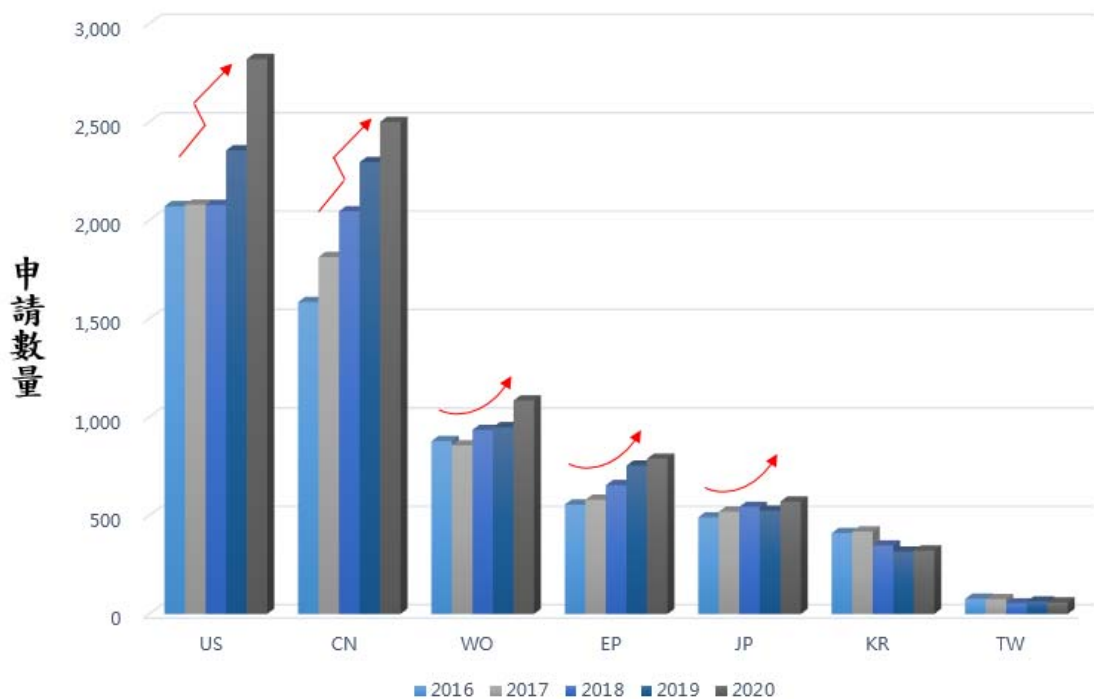


圖 6、近五年主要國家/區域申請情況²⁵

三、申請人分析

透過篩選功能挑選出申請數量之前 10 名申請人，如圖 7，排名前 10 名的申請人類型大致上包括：醫療設備廠商，如排名第 1 的 KONINKLIJKE PHILIPS N.V. 及排名第 3 的 KONINKLIJKE PHILIPS

²⁴許良因，韓國遠距醫療政策與阻礙因素，國際文化研究 14 卷 1 期，2018 年 6 月

²⁵資料來源：Derwent Innovation，PSC 整理

ELECTRONICS N.V.（簡稱飛利浦），申請數量合併計 1,992 件；電子廠商，如排名第 2 名的 SAMSUNG ELECTRONICS CO LTD（簡稱三星），申請數量為 903 件；資訊廠商，如第 10 名的 International Business Machines Corp（簡稱 IBM），申請數量為 418 件。其他相關公司資訊如：Cardiac Pacemakers Inc.是一家提供心律不整相關治療的公司，其為 Boston Scientific Corp.旗下的子公司；Intuitive Surgical Operations 是提供達文西手術系統之供應商；Biosense Webster Israel LTD.為提供心律不整相關診斷的公司，其在 1997 年被嬌生公司所收購。另外，比較前述公司近 10 年的申請趨勢，如圖 8，飛利浦在 2016 至 2019 年每年的申請數量皆有較大幅度的提升；三星在 2014 年的申請數量相較於 2013 年則有約三倍的成長，或為電子廠商轉型的象徵。

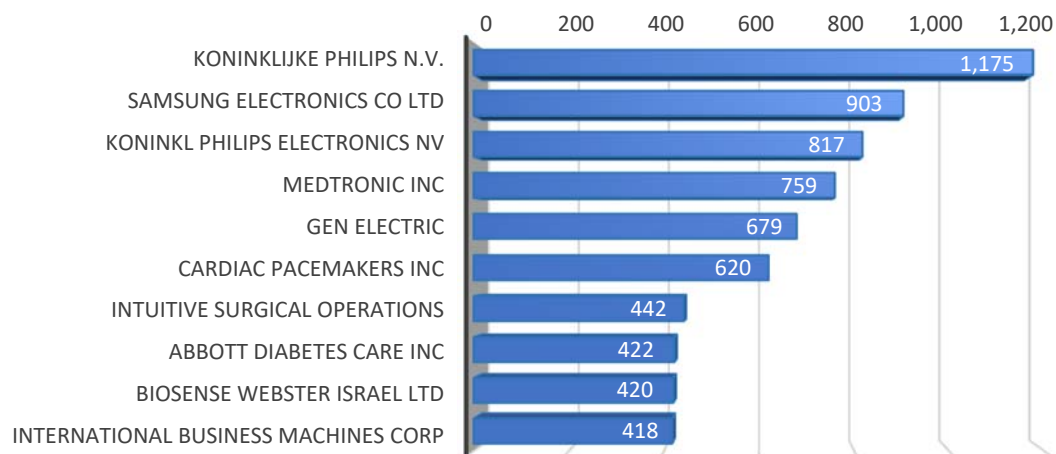


圖 7、申請數量前十名之申請人²⁶

²⁶資料來源：Derwent Innovation，PSC 整理

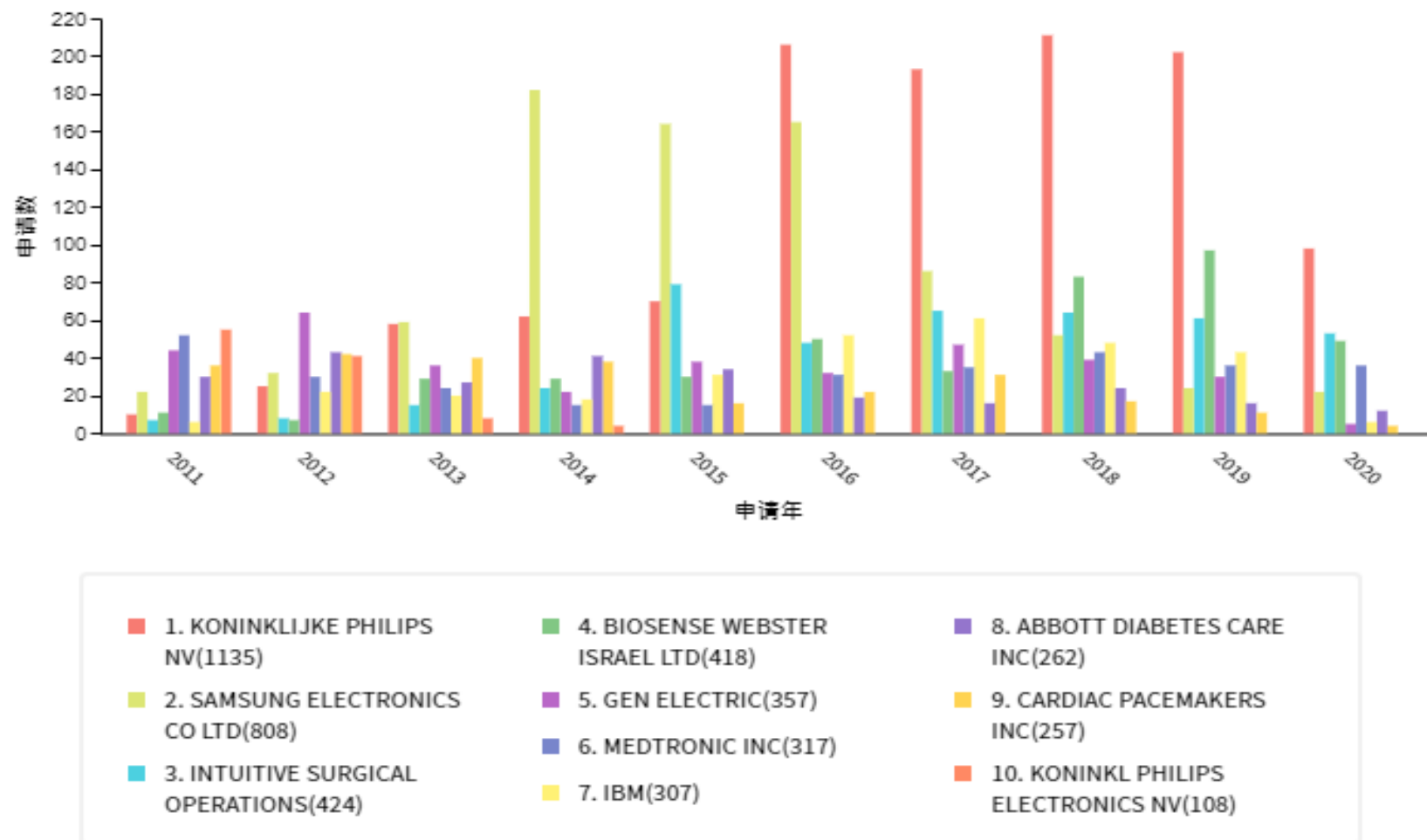


圖 8、近 10 年主要申請人之申請趨勢

深入分析前述公司背後的集團資訊以瞭解其整體布局，透過 Derwent Innovation 的終屬母公司選項重新篩選排序，見圖 9、圖 10，申請數量前 3 名依序為飛利浦、美敦力（MEDTRONIC INC.）及嬌生（Johnson & Johnson），分別為 3,754 件、2,169 件及 1,661 件，顯示集團化的醫療設備商具有較多的資源且布局意願亦較高，排名第 4、5 位的為西門子（SIEMENS AKTIENGESELLSCHAFT）及奇異（GENERAL ELECTRIC COMPANY）。從布局之國家/區域概況觀察，飛利浦及嬌生公司的專利布局國別與數量較其他公司平均，美敦力在美國的申請數量排名第 1，佳能（Canon INC.）的專利布局重點主要在日本。

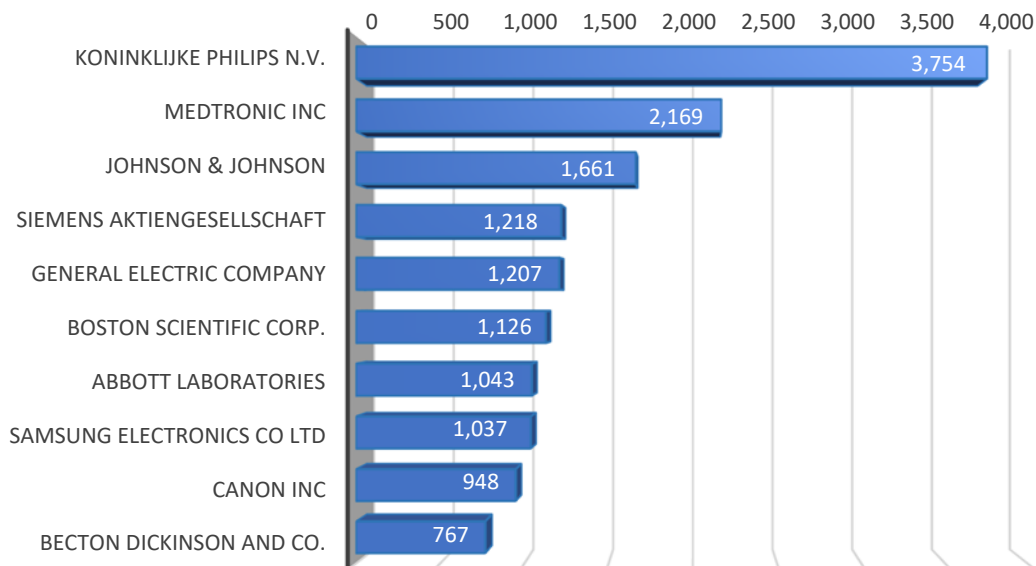


圖 9、申請數量前十名之申請人終屬母公司²⁷

²⁷資料來源：Derwent Innovation，PSC 整理

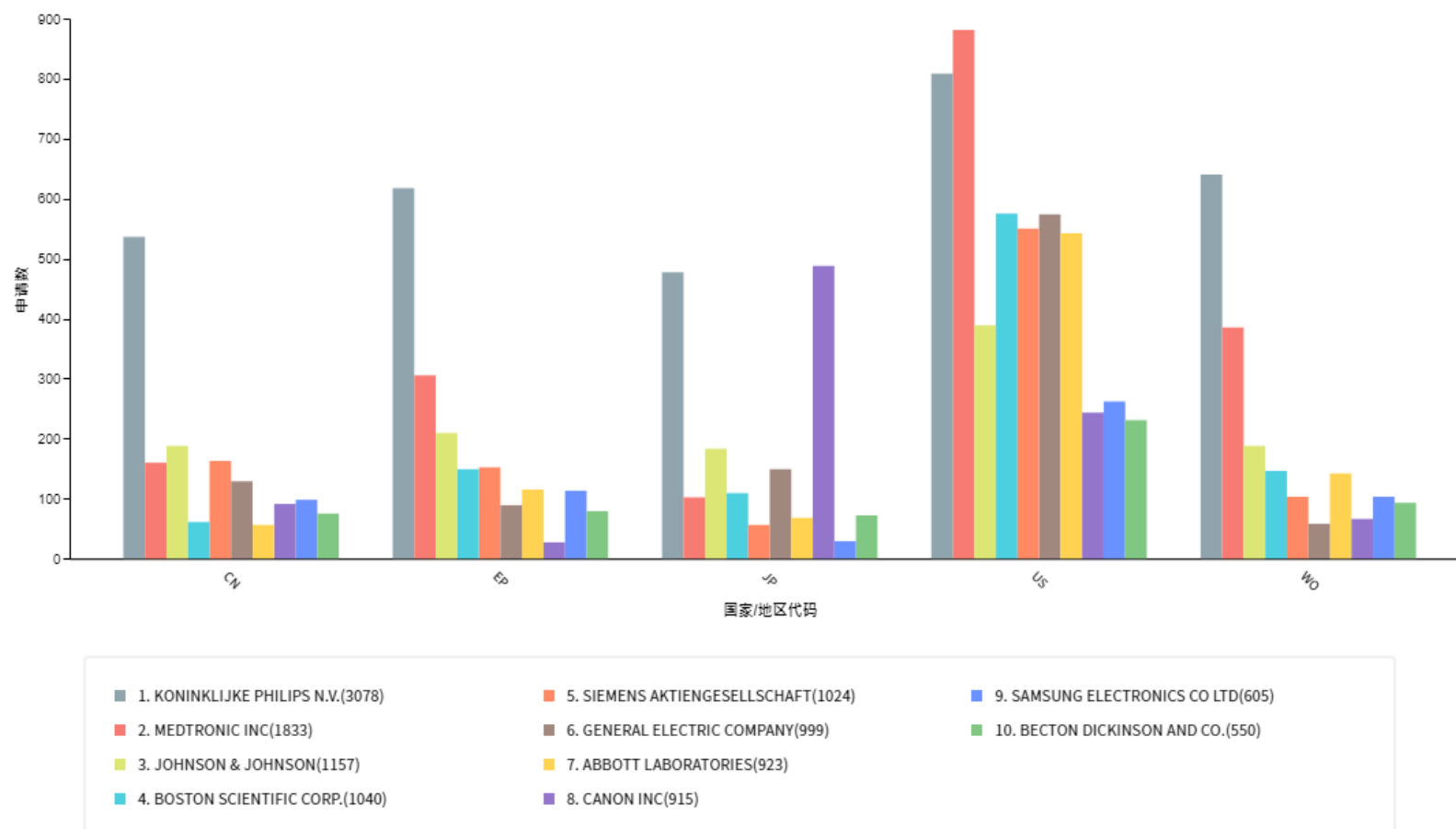


圖 10、近 10 年主要申請人終屬母公司之申請趨勢²⁸

²⁸資料來源：Derwent Innovation，PSC 整理

四、國際分類號(IPC)分析

篩選並列出近 20 年前 10 名的主要 IPC 分類號，如圖 11 及表 3，其中 IPC 分類號分布在 A61B 5/00 及 G06F 19/00 兩分類即佔了整體申請案的 50%，排名第 1 位的 A61B 5/00 主要涉及診斷相關的量測技術。

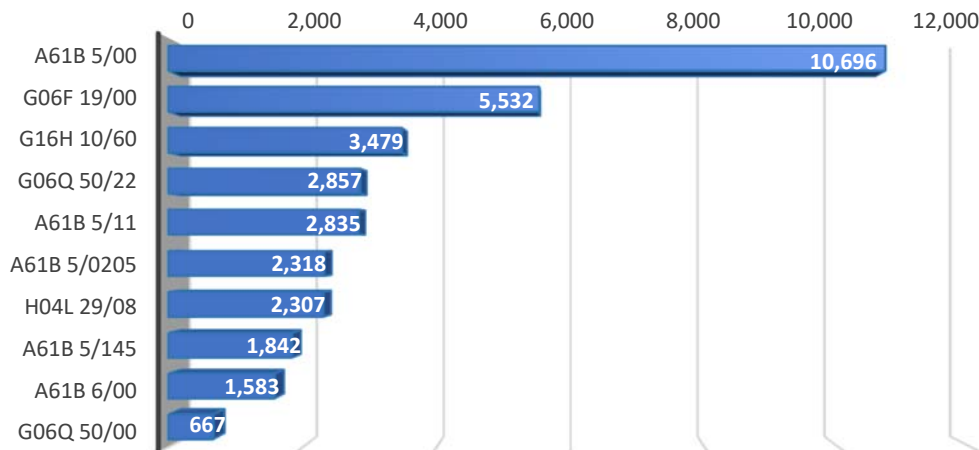


圖 11、全球專利前 10 名的主要 IPC 分類號²⁹

表 3、主要國際分類號(IPC)定義

IPC	定義
A61B 5/00	用於診斷目的之測量；人之辨識
G06F 19/00	專門用於特定應用的數據計算或數據處理之設備或方法
G16H 10/60	用於個別病人數據，例如用於電子病歷
G06Q 50/22	社會工作
A61B 5/11	測量整個人體或部分人體之運動，例如頭或手之震顫、肢體之活動
A61B 5/0205	同時測定心血管狀況與不同類型之身體狀況者，例如心與呼吸狀況
H04L 29/08	用於個別病人數據，例如用於電子病歷
A61B 5/145	測量體內血液特性，如血液內的氣體濃度、血液 pH 值
A61B 6/00	用於放射診斷之儀器，例如與放射治療設備相結合者
G06Q 50/00	專門適用於特定經營部門的數據處理系統或方法，如保健、公用事業、旅遊、法律服務

²⁹ 資料來源：Derwent Innovation，PSC 整理

進一步透過篩選功能檢視近 10 年前述 10 大 IPC 的變化，如表 4，表中呈現申請案大宗仍為 A61B 5/00，且自 2014 年開始躍升至 1,000 件以上，並在 2016 年達到最高峰，後續也仍維持在約 1,300 件；原排名第 2 位的 G06F 19/00 則在 2018 年大幅削減，其中又以美國申請案最為明顯（自 2017 年 263 件降至 2018 年 14 件），推測可能原因在於美國專利商標局在 Alice Corp. v. CLS Bank International 判決後對專利適格性頒布了判斷標準，讓相關分類號的初審核駁率在 2017 至 2018 年達到了最高峰，如圖 12，因此可能直接導致申請人避免以此分類提出申請。除此之外，觀察到與病歷相關的數據應用（IPC 分類為 G16H 10/60）的專利數量持續攀升中，其他技術為數據應用的活絡及遠距醫療服務模式的形成（IPC 分類為 G06Q 50/22）、與人體動態偵測相關的技術（IPC 分類為 A61B 5/11）及結合多種檢測數據的技術（IPC 分類為 A61B 5/0205），顯示各種穿戴裝置技術已臻成熟，且與穿戴裝置所獲的檢測或監控結果結合將有利於遠距醫療發展。

表 4、近 10 年前 10 大 IPC 分布情形³⁰

IPC	專利數量	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
A61B 5/00	10,696	416	580	794	1064	1,198	1,517	1,386	1,388	1,330	1023
G06F 19/00	5,532	490	608	783	911	888	1,076	679	67	20	10
G16H 10/60	3,479	214	319	387	358	328	283	260	400	468	462
G06Q 50/22	2,857	193	346	412	411	429	392	329	154	105	86
A61B 5/11	2,835	97	132	181	347	342	384	405	371	319	257
A61B 5/0205	2,318	73	115	164	259	289	333	313	268	240	264
H04L 29/08	2,307	110	96	179	168	267	306	349	279	293	260
A61B 5/145	1,842	97	108	130	219	218	284	217	209	203	157
A61B 6/00	1,583	87	146	155	179	150	157	188	175	195	151
G06Q 50/00	667	235	63	54	59	50	51	48	43	37	27

³⁰資料來源：Derwent Innovation，PSC 整理

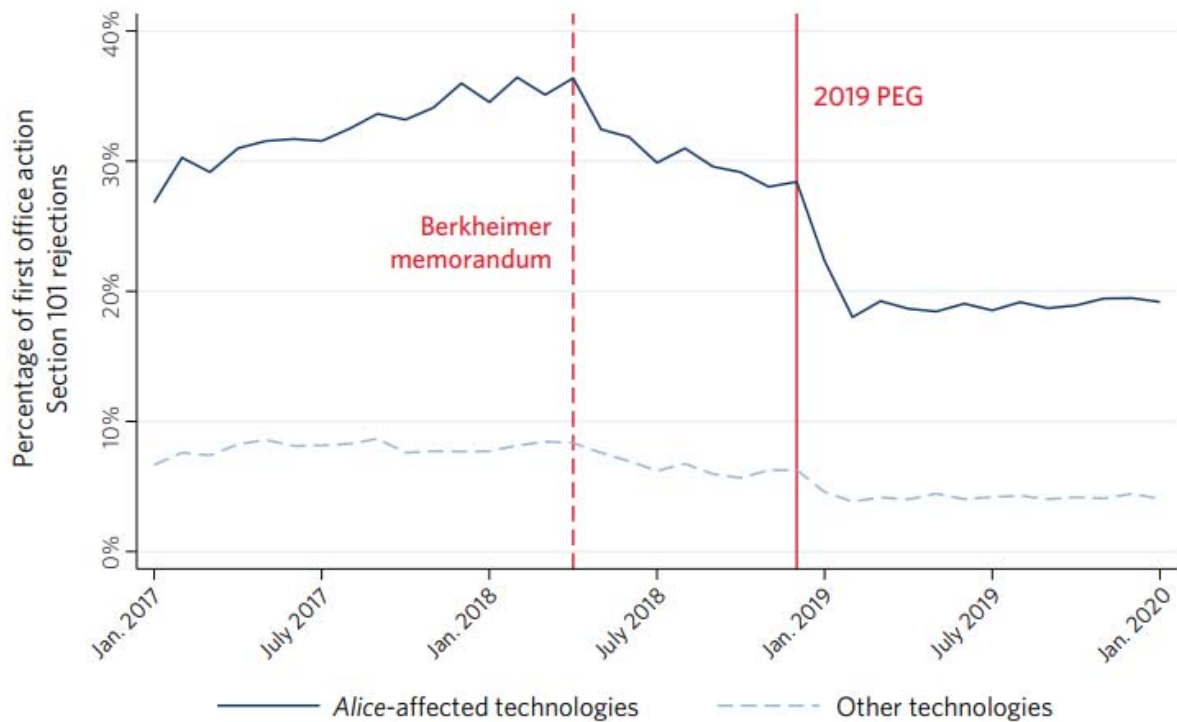


圖 12、美國專利申請案中第一次官方回覆獲 101 核駁機率

五、發明人分析

針對本次檢索獲得遠距醫療技術相關專利文獻之發明人分析，如表 5，在排名前 3 名的發明人分別為 Hyde, Roderick A.、Wang, Yulun 及 Kamen, Dean。另分析此 3 位發明人所投入的申請案之主要 IPC 分類及專利數量，如表 5 所示，其中 Hyde, Roderick A.投入於較多 IPC 類別專利，包括 A61B 5/00 等 5 種類別（有 147 件），主要申請人為 Elwha LLC(專利運營公司)；其次為 Wang, Yulun 主要投入於 G06F 19/00 類別專利(有 64 件)，主要申請人包括 InTouch Technologies 及 Teladoc Health Inc (InTouch 於 2020 年由 Teladoc 所收購)；第 3 為 Kamen, Dean 主要投入於 A61B 5/00 類別專利（有 34 件），申請人為 Kamen, Dean 創立的 Deka Products。

表 5、遠距醫療前三大發明人投入之主要 IPC 分類³¹

主要 IPC	發明人	專利數量(件)
A61B 5/00	Hyde, Roderick A.	67
	Kamen, Dean	34
G06F 19/00	Wang, Yulun	64
	Hyde, Roderick A.	24
A61B 5/11	Hyde, Roderick A.	16
A61B 5/145	Hyde, Roderick A.	17
G06Q 50/00	Hyde, Roderick A.	23

六、技術分析

為瞭解遠距醫療專利中有關監控、諮詢及教育訓練之技術領域與其佔比，進一步對檢索所獲得的全球遠距醫療相關專利文獻進行分類與分析，如圖 13，其中監控類技術在全球遠距醫療專利中佔 46%（有 53,801 件），諮詢類技術佔 21%（有 24,026 件），教育訓練類技術佔 20%（有 23,134 件）。

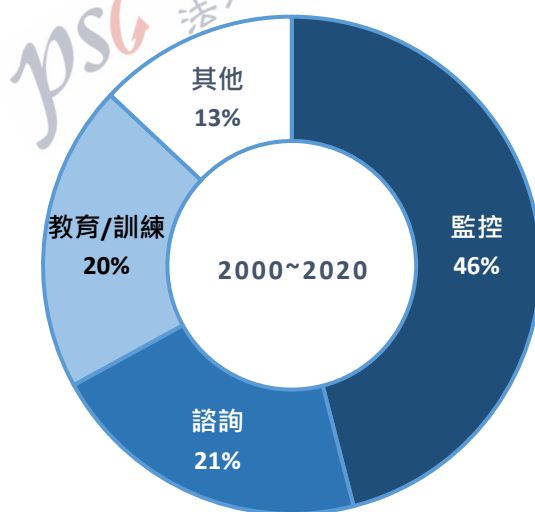


圖 13、全球近 20 年遠距醫療專利領域分類情況

另比較 2000~2015 年與 2016~2020 年之變化，如圖 14，教育訓練類技術比例由 15%（10,622 件）上升至 27%（12,568 件），相較於

³¹資料來源：Derwent Innovation，PSC 整理

其他類技術有較顯著變化，推測原因或與 5G 技術的成熟有關，如 5G 網路的高速、低延遲等特性帶給醫療領域新的使用情境，諸如 AR、VR、MR，XR（Extended Reality）等的技術應用，預期將會在後疫情時代有更多的發揮空間。

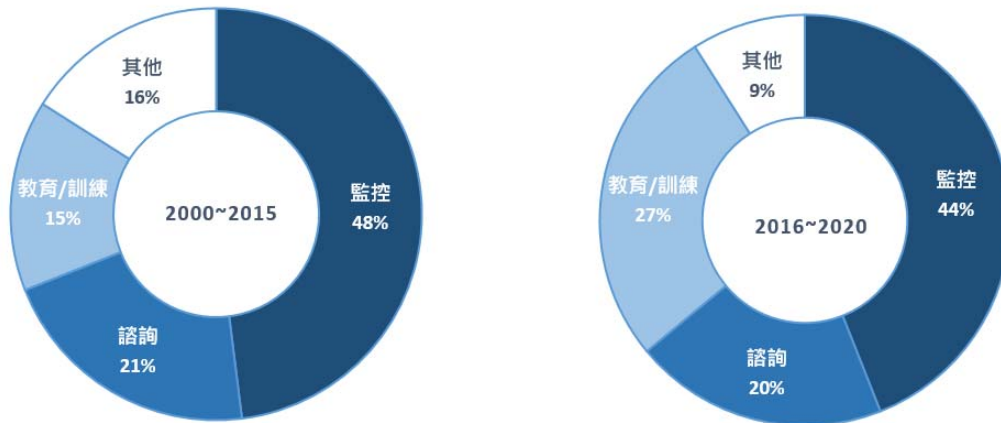


圖 14、全球近 5 年遠距醫療專利領域分類變化趨勢³²

透過 Derwent Innovation 的 INSIGHTS 功能對近 5 年該領域之專利技術內容進行分析，如圖 15，其中前 3 名的用語包含手術、內視鏡應用、健康照護、治療評估、雲端資料管理，本次檢索到的遠距醫療相關的專利文獻中約有 63%（8,193 件）的專利技術提到前述用語，另外還有區塊鏈與擴增實境應用等技術用語。



圖 15、全球專利近 5 年 INSIGHTS 分析³³

³² 資料來源：Derwent Innovation，PSC 整理

³³ 資料來源：Derwent Innovation，PSC 整理

七、台灣專利分析

為瞭解遠距醫療專利在台灣之布局現況，透過檢索並篩選出布局台灣的專利文獻，共獲得 1,039 件(併計 997 個 INPADOC 專利家族)。其中排名前 5 名的申請人以學研單位為主，第 1 名為工業技術研究院(有 20 件)，其他申請數量達 10 件以上的依序為元智大學、成功大學、張國源(自然人)、陽明大學、長庚大學。

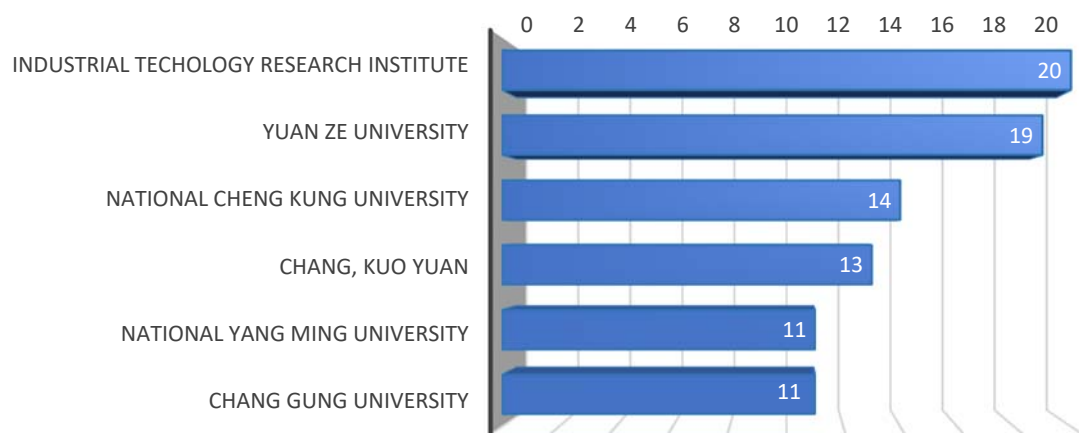


圖 16、台灣專利申請數量前 5 名之申請人³⁴

針對 IPC 分類分析，見圖 17，台灣前 10 大 IPC 排名第 1 位為 G06Q 50/22 (原全球專利中排名為第 4 位)，對比全球專利數量最多的 A61B 5/00 分類下呈現較大差異比例；另如圖 18，進一步透過 Derwent Innovation 的 INSIGHTS 功能分析，在近 5 年專利技術中有 53% (77 件) 的專利文獻提到區塊鏈、支付應用、手術、內視鏡應用、健康照護、治療評估等字詞。

³⁴ 資料來源：Derwent Innovation，PSC 整理

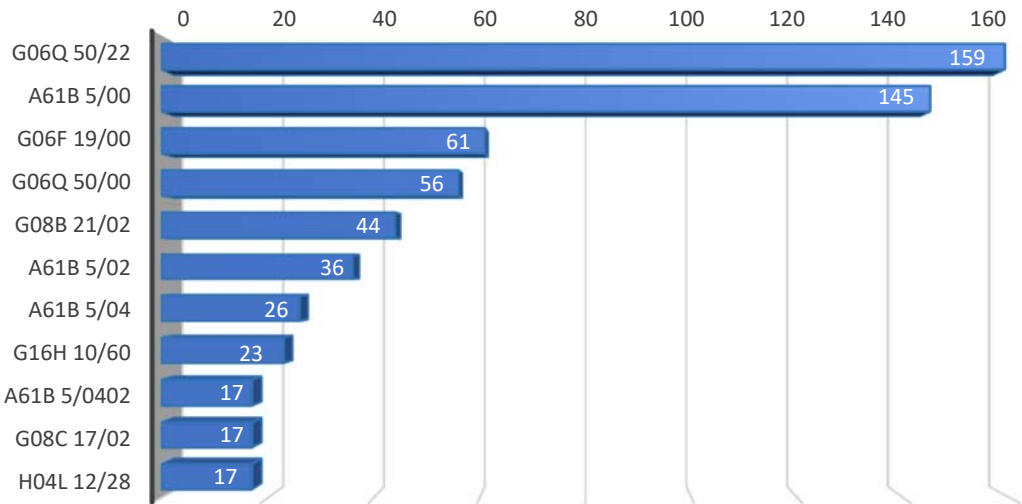


圖 17、台灣專利主要 IPC 分類號³⁵



圖 18、台灣專利近 5 年 INSIGHTS 分析³⁶

³⁵ 資料來源：Derwent Innovation，PSC 整理

³⁶ 資料來源：Derwent Innovation，PSC 整理

伍、專利訴訟趨勢分析

一、美國專利訴訟分析

專利訴訟為企業基於商業競爭所為之行為，亦是無形資產展現其具體價值的契機，本章擬透過專利訴訟資訊對遠距醫療產業進行分析，資料部分選擇全球遠距醫療最大之北美市場，同時也是訴訟體制最完整的美國作為分析主體，另以分析之結果提供見解。

本訴訟趨勢分析係以前述遠距醫療專利分析之檢索策略為基礎，利用 Innography 資料庫進行檢索，檢所時間迄至 2021 年 5 月 14 日。檢索結果，其中涉及訴訟的專利共 253 件，以訴訟之管轄地點統計，前五名者依序為東德州地方法院（District Court of Eastern District of Texas, Texas Eastern D C）、專利審理暨訴願委員會（Patent Trial and Appeal Board, PTAB）、德拉瓦州地方法院（District Court of Delaware, Delaware D C）、麻薩諸塞州地方法院（District Court of Massachusetts, Massachusetts D C）以及加利福尼亞州北區地方法院（District Court of Northern District of California, California Northern D C），詳細分布佔比見圖 19。

在前述管轄地點中，專利審理暨訴願委員會（簡稱 PTAB）成立於 2012 年 9 月 16 號，成立法源為「美國發明法案」(Leahy-Smith America Invents Act, AIA)，為美國專利商標局（United States Patent and Trademark Office, USPTO）下轄職司專利審理與訴願等相關程序的組織，其所呈現之高佔比為主要業務：多方複審程序（Inter Partes Review, IPR）之聲請所致。

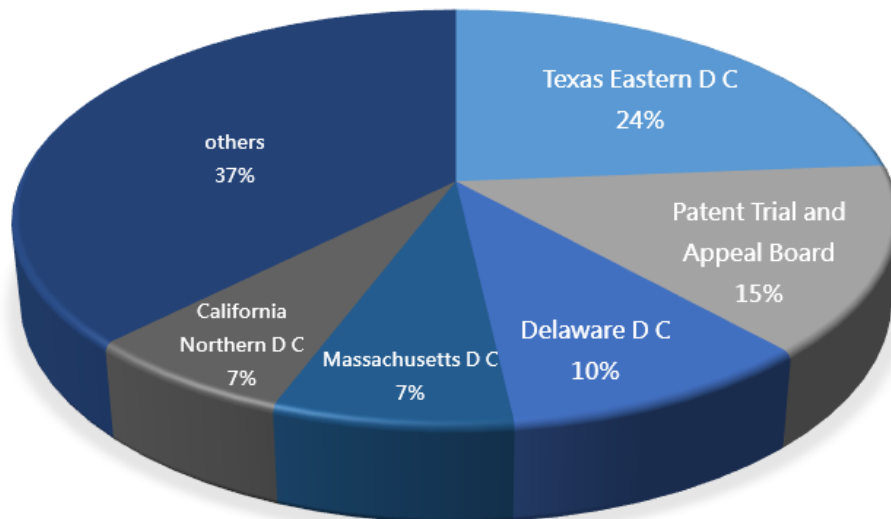


圖 19、美國遠距醫療專利訴訟之管轄地點分布³⁷

從興訟方所提出之專利數量進行評比，前三名分別為：Robert Bosch Healthcare Systems, Inc.（18 件），Teladoc Health, Inc.（14 件），Fellowship Filtering Technologies, LLC（12 件），及 Olive Shade LLC（12 件），其中 Robert Bosch Healthcare Systems, Inc.及 Fellowship Filtering Technologies, LLC 之專利皆已過期，其他興訟方包含 Medtronic, Inc.、Apple、Microsoft 等。

圖 20 中列出專利數量超過 10 件之興訟方及其專利數量，另分別列出未滿 10 件之各領域重點公司。其中，作為興訟方第一名的 Robert Bosch Healthcare Systems, Inc.（簡稱 Robert Bosch），該公司為德國 Bosch 集團下專營醫療研究、醫院及健康照護服務之公司，販售之產品以檢測用之醫療器材為主。第二名的 Teladoc Health, Inc.（簡稱 Teladoc）為美國最大的遠距醫療公司。並列第三名的有 Fellowship Filtering Technologies, LLC（簡稱 Fellowship Filtering）及 Olive Shade LLC（簡稱 Olive Shade），兩者皆為非實施專利實體（Non-Practicing Entity，NPE）。

³⁷ 資料來源：Innography，PSC 整理

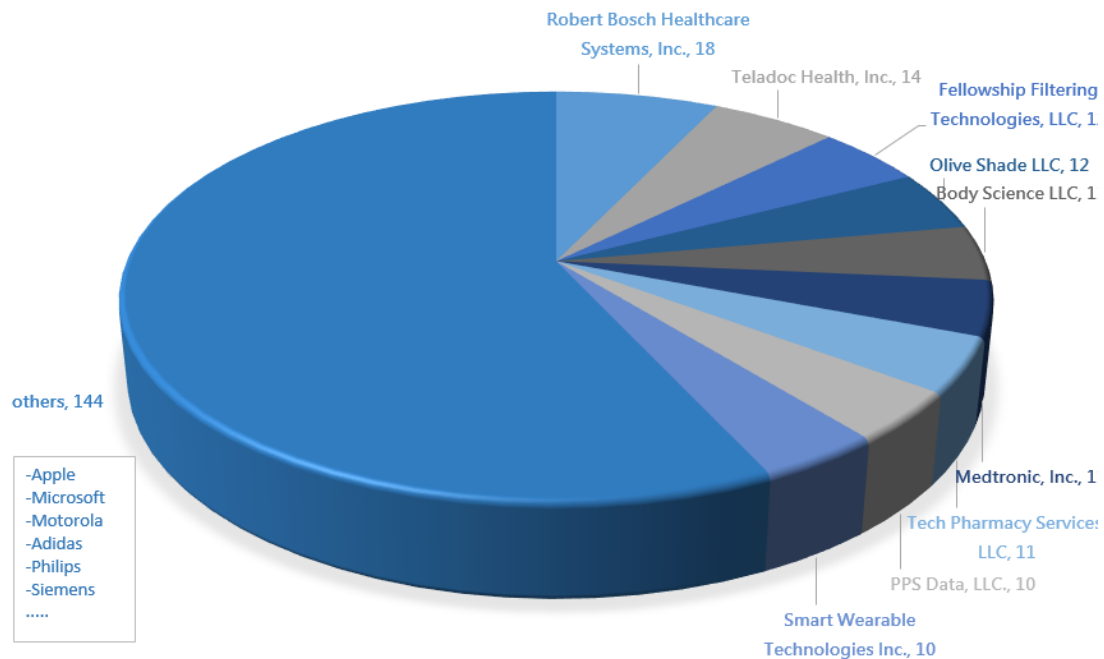


圖 20、美國遠距醫療專利訴訟之興訟方與所提出之專利數量³⁸

通過人工審閱，對於興訟方前三名所提出之專利進行技術、功效之分類，結果見表 6。其中，縱向之欄為技術說明、橫向之列由上至下分別為一階及二階功效說明，以技術維度檢視，表中生理/活動監控一技術所涉訴訟次數最多且應用最為廣泛；另由功效維度檢視，訴訟次數最多者為配藥過程管理，其次為視頻、音頻之辨識處理、通訊鏈路的選擇/建立與標籤/配對，然而以一階功效的用藥計價來看，二階功效中除就診紀錄製作外的專利皆已失效，顯示有若干技術已可為公眾所利用，見表中灰色區塊部分。

³⁸ 資料來源：Innography，PSC 整理

表 6、興訟方前三名之技術功效矩陣列表³⁹

技術/ 功效	感測技術			傳輸技術			資料交換				資料分析			回饋傳遞				資訊顯示		用藥計價					
	GPS 定位 資訊 應用	檢測 光訊 應用	生理 信號 結合 環境 信號 應用	通訊 鏈路 選擇/ 建立	資訊 識別 與回 報	檢測 數據 即時 傳輸	GUI 設計	串聯 多方 診療	標籤/ 配對	病歷 共享	視頻, 音頻 辨識 處理	顯示 代表 性數 據	病理 數據 分析	接收 資料 比對 結果	依指 令層 級作 動	依預 設參 數輸 出警 報	產生 專業 建議	遠端 器械 回饋	接收 視覺 化顯 示結 果	患者 獲取 處方 資訊	就診 紀錄 製作	用藥 紀錄 比對	依據 用藥 紀錄 進行 風險 評估	配藥 過程 管理	計價 服務
機器人操作											3				1										
光源控制		1																							
生理/活動監控	1		1	1							1	1	1	1		1		2	2						
藥房服務																			2			1		5	1
診斷/分析		1						1	3																
醫材應用						1	1											1	1						
緊急通報系統					1											1									
數據傳輸/應用				3													2				1		1		1
虛擬平台										2			1												1

³⁹ PSC 整理

二、美國專利訴訟分析，以 Teladoc Health, Inc.及 Amwell 為例

以遠距醫療的關鍵字進行檢索所獲訴訟案件中，目前仍在進行中的是 Teladoc 於德拉瓦州地方法院對 Amwell 提出的專利侵權之訴（1:20-cv-01377）。Teladoc 與 Amwell 皆為專司遠距醫療服務的美國公司，該兩家公司間的訴訟始於 2015 年的多方複審（Inter Partes Review, IPR）挑戰（IPR2015-00924）及專利侵權之訴（1:15-cv-12274），以下針對本案訴訟雙方的基礎資料與爭議背景進行介紹，再對訴訟中的重點專利進行深入分析與提出見解。

1、Teladoc 與 Amwell 之公司資訊介紹

Teladoc 現總部位於美國紐約，為美國專司遠距醫療服務的領導廠商，根據 FortuneBusiness Insight 之報導，其在遠距醫療的市場份額（market share）一度來到 75%，是美國最大的遠距醫療公司，競爭對手包括 MDLIVE, Inc.、Doctor on Demand, Inc. 及 American Well Corporation (Amwell) 等。Teladoc 所開發的集成式虛擬照護平台 Solo，能在 Microsoft Teams 的操作環境中連接醫生與患者，並且讓醫生能安全地取得患者的健康資訊。

Amwell 總部位於波士頓，該公司致力於發展虛擬照護，旨在讓選擇遠距醫療服務的使用者可以隨時獲得照護而無須前往醫院或急診室，並且在其規劃中，使用者可以選擇他（她）們的醫生或護理人員。Amwell 的願景與策略獲得 Google 的資助，同時也讓蘋果、思科和飛利浦等公司與其展開合作計畫，其在 2019 年 1 月推出其遠距醫療產品 American Well 760 Cart，而後在 2020 年 8 月進行首次公開募股（Initial Public Offering）。相關公司資訊如表 7。

表 7、Teladoc 及 Amwell 公司資訊⁴⁰

公司名稱	市值(億美元)	員工人數	經營概念	產品資訊
Teladoc Health, Inc.  https://www.teladoc.com/	約 287 (2021/04/14)	4,400	Teladoc Health, Inc.於 2002 年在德州成立並在 2015 年 7 月上市，現總部位於紐約。該公司於 2015 年起陸續併購了 BetterHelp（心理健康諮詢公司）、Best Doctors（醫療諮詢公司）、InTouch Health（遠距醫療器材與服務公司）、Livongo Health（數位化慢性病管理公司）等公司，提供涵蓋 450 個醫學專科的遠距醫療服務，主要客戶包含中介者、經銷商及顧問等，解決方案包含患者遠距監測、出院後的治療規劃及慢性病照護。	Solo™ Virtual Care Platform  CONSULT REQUEST • Easily connect to your patients at the right time. • Real-time communication and alerts ease coordination among patients, clinicians and locations for scheduled and on-demand patient care.
Amwell  https://business.amwell.com/	約 510 (2020/09/18)	700	Amwell（原稱為 American Well）於 2006 在波士頓成立，2020 年 9 月在紐約證交所上市，其合作夥伴 Google 在其完成上市後佔有約 3.03%股權。Amwell 提供的遠距醫療服務始於平台服務，患者能透過其平台服務與醫生進行視訊診療，有助於患者減少就診花費，保險業者能減少鉅額給付費用，醫生在進行診斷後確認治療方案和開藥，再將處方發送到患者選擇之藥局，亦收問診時間縮短之益。	 • The Amwell C760 telemedicine cart is an FDA Class I registered medical device designed to bring remote specialists to support acute care teams on-site. • Telemedicine carts are systems that integrate cameras, displays, and network access to bring remote physicians right to the side of the patient. Telemedicine Cart

⁴⁰資料來源：Teladoc、Amwell 網站，PSC 整理

2、爭議背景介紹

訴訟流程如圖 21 所示雙方訴訟事件時間軸，本案發生之背景源自 Teladoc 在 2015 年 3 月 24 日向專利審理暨訴願委員會(Patent Trial and Appeal Board, PTAB)開出了第一槍，其對於 Amwell 所擁有專利 US7,590,550B2 (後稱'550 專利)之有效性提出多方複審挑戰，此次訴求主要針對該專利請求項中第 10、11、23 及 30 項提出不具新穎性或非顯而易知性之挑戰。Amwell 則是在 2015 年 6 月 8 日於麻薩諸塞州地方法院對 Teladoc 提出專利侵權之訴(1:15-cv-12274)，控訴 Teladoc 所提供的遠距健康服務侵害其'550 專利中的請求項第 10、11、23 及 30 項，在專利侵權之訴中，法官見解認為'550 專利不符合專利適格性而令該案於 2016 年 6 月 16 日宣告終結。

另在專利無效之訴(IPR2015-00924)聲請方面，該案自 2015 年 9 月 14 日立案後，在 2016 年 8 月 23 日獲得最終判決(Final written description)，判決中宣告前述 4 項請求項均為無效。在雙方第一波的攻防中，Teladoc 成功地運用 IPR 的策略加速了和解的進行，然而，在接下來的時間裡，Teladoc 完成了 Intouch Health 的併購，擴大了其產品組合與應用，特別是在機器人推車進行遠距醫療操作、互動式資訊服務站及醫療環境下的數位設備技術。Teladoc 亦在 2020 年 10 月以自 Intouch 所獲之專利，如 US 7,761,185 B2(後稱'185 專利)，對 Amwell 提起專利侵權訴訟，而 Amwell 旋即對 Teladoc 所提專利提出 IPR，相關案件目前仍在進行中。

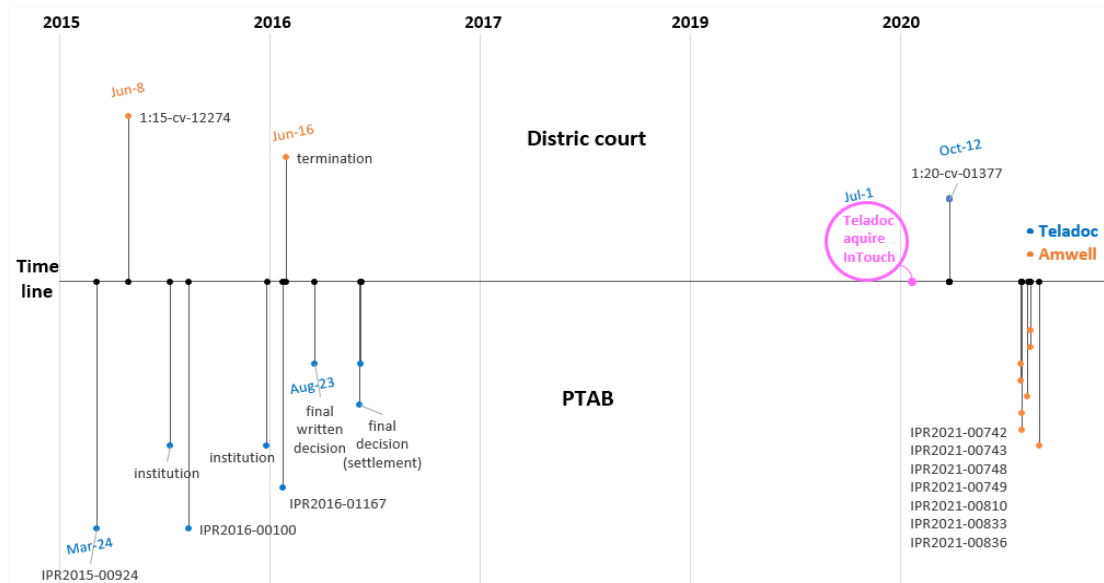


圖 21、Teladoc 與 Amwell 訴訟事件時間軸⁴¹

3、訴訟專利之爭議請求項重點說明

在雙方第一波攻防中，'550 專利為雙方爭執的第一件專利，該篇專利涉及遠距醫療中之消費者（consumer）與服務提供者（service provider）建立通信的技術，以下對該專利中主要爭議之內容進行詳細介紹。'550 專利之申請日期為 2007 年 6 月 15 日，並於 2009 年 9 月 15 日獲准，主要技術係以消費者有諮詢需求時，能與特定之服務提供者進行通訊，其獨立項包含不同面向的計算機實現方法、計算機程式產品與裝置。以下對於 IPR2015-00924 與 1:15-cv-12274 兩案中共同訴求的權利項（10、11、23、30）進行分析（表 8）。

⁴¹ PSC 整理

表 8、Amwell 專利 US7,590,550B2 之爭議請求項內容⁴²(中英對照)

申請專利範圍解釋之請求項		
請求項	英文	中文
10	A computer-implemented method comprises: accessing a data repository that stores information pertaining to medical service providers, including present availability of the medical service providers for participating in a consultation; receiving in a computer, indications that members of a pool of medical service providers have become presently available; receiving in the computer, a request from a consumer of services to consult with a medical service provider; identifying in the computer, an available member of the pool; and establishing a real-time communication channel between the consumer of services and the identified member of the pool.	一種計算機實現的方法包括： 訪問儲存有醫療服務提供者之數據庫，包含醫療服務提供者當前參與諮詢的可得性； 於計算機端接收醫療服務提供者候選名單中於當前為可得之指示； 於計算機端接收消費者對於醫療服務提供者之諮詢服務需求； 於計算機端識別醫療服務提供者候選名單中之可得者；及 為消費者與經識別之醫療服務提供者建立實時通訊連線。
11	The method of claim 10 wherein: the request includes an identification of a time in the future; and	根據請求項 10 的方法： 需求包括確認一指定時間點；及

⁴²資料來源：US7,590,550B2 專利文獻，PSC 整理

申請專利範圍解釋之請求項		
請求項	英文	中文
	identifying the member of the pool and establishing the communication channel take place at the identified time.	於候選名單中確認醫療服務提供者且確認實時通訊連線於該指定時間點建立。
23	A computer program product residing on a computer readable medium for providing broker services to consumers and service providers, the computer program product comprising instructions for causing a computer to: access a data repository that stores information pertaining to medical service providers, including present availability of the medical service providers for participating in a consultation; receive indications that members of a pool of medical service providers have become presently available; receive a request from a consumer of services to consult with a medical service provider; identify an available member of the pool; and establish a real-time communication channel between the consumer of services and the identified member of the pool.	一種計算機軟體常駐於計算機可讀取之媒體中以提供中介服務予消費者及服務提供者，該計算機軟體包含指令以令計算機： 訪問儲存有醫療服務提供者之數據庫，包含醫療服務提供者當前參與諮詢的可得性； 接收醫療服務提供者候選名單中於當前為可得之指示； 接收消費者對於醫療服務提供者之諮詢服務需求； 識別一可得之醫療服務提供者；及 為消費者與經識別之醫療服務提供者建立實時通訊連線。

申請專利範圍解釋之請求項		
請求項	英文	中文
30	An apparatus comprising: a processor; and a computer program product residing on a computer readable medium for providing broker services to consumers and service providers, the computer program product comprising instructions for causing the processor to: access a data repository that stores information pertaining to medical service providers, including present availability of the medical service providers for participating in a consultation; receive indications that members of a pool of medical service providers have become presently available; receive a request from a consumer of services to consult with a medical service provider; identify an available member of the pool; and establish a real-time communication channel between the consumer of services and the identified member of the pool.	一種裝置，包括： 處理器；及 計算機軟體常駐於計算機可讀取之媒體中以提供中介服務予消費者及服務提供者，該計算機軟體包含指令以令處理器： 訪問儲存有醫療服務提供者之數據庫，包含醫療服務提供者當前參與諮詢的可得性； 接收醫療服務提供者候選名單中於當前為可得之指示； 接收消費者對於醫療服務提供者之諮詢服務需求； 識別醫療服務提供者候選名單中之可得者；及 為消費者與經識別之醫療服務提供者建立實時通訊連線。

從技術層面來看，‘550 專利為一使用者導向的醫療服務系統，內容闡述了當使用者有醫療服務需求時，可通過其系統檢視服務提供者之狀態，此外，使用者在選擇前可對不同服務提供者定義其優先程度，即便使用者偏好的服務提供者的當前狀態為忙碌時，使用者亦能選擇在其有空時進行預約。以現今的醫療體系來看，此一技術順應了遠距醫療的應用趨勢，也強調了中介商服務的重要性，然而，Teladoc 所提供的平台服務即扮演了中介商的角色，其表示曾向 Amwell 尋求授權，但卻得到了後者的拒絕，後續便觸發了 IPR2015-00924 一案。該案依據美國發明法案（Leahy-Smith America Invents Act，簡稱 AIA）之生效日期，在新穎性判斷上適用於舊法（pre-AIA）。在此案立案資料中，Teladoc 提出了包含權利項 10、11、23、30 不符新穎性及非顯而易知性的挑戰，證據包含 US 7,412,396 B1（簡稱‘396 專利）、US 6,704,403 B2（簡稱‘403 專利）及 US 2003/0,023,458 A1（簡稱‘458 專利），詳見下表 9，並且對於專利中所述的字詞“information pertaining to medical service providers”、“a real-time communication channel”及“a time in the future”提出請求項範圍解釋（claim construction）。

表 9、IPR2015-00924 立案資料所列證據組合

先前技術	主張法條基礎	挑戰權利項
US 7,412,396 B1	§ 102(e)	10、11、23、30
US 6,704,403 B2	§ 102(b)	10、11、23、30
US 6,704,403 B2	§ 103(a)	11
US 7,412,396 B1 及 US 6,704,403 B2	§ 103(a)	11
US 2003/0,023,458 A1	§ 102(b)	10、23、30
US 2003/0,023,458 A1 及 US 7,412,396 B1	§ 103(a)	11

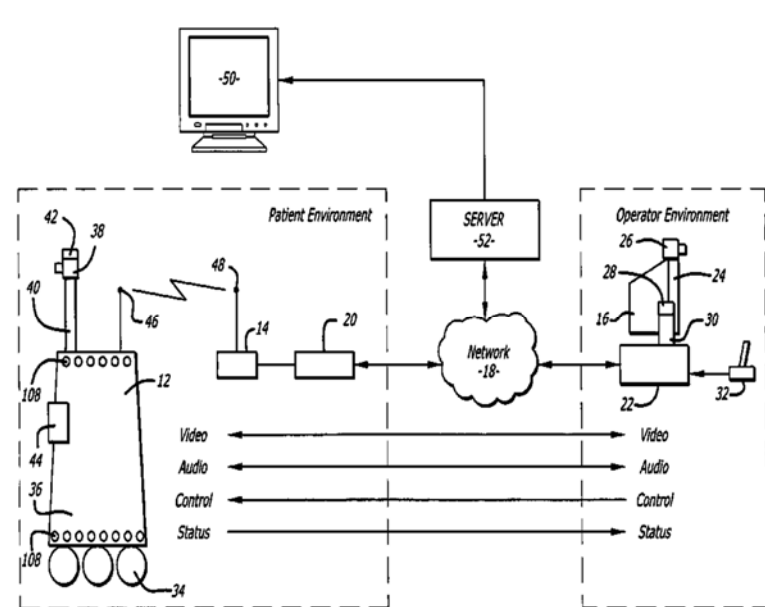
在前述證據組合中，'396 專利揭示了一種提供患者照護的方法，主要以保險業者為患者及醫事人員通過網路建立虛擬門診，其中虛擬門診與醫事人員連線，且患者可透過虛擬門診與特定之醫事人員進行即時通訊；'403 專利揭示一種方法，該方法中描述了使用者與服務提供者透過語音（voice mail）進行即時通訊，另使用者可透過軟體提供之名稱找到服務提供者；'458 專利揭示一種包含虛擬呼叫中心之系統，虛擬呼叫中心基於患者之照護請求將其連接至合適之醫療照護者。基於 Teladoc 提出之證據及理由，PTAB 認為已達證據優勢（Preponderance of Evidence）標準，並且在 2016 年 8 月 23 日獲得 PTAB 的最終書面決定（final written decision）。在決定文中，PTAB 針對聲請人（petitioner）之請求項解釋作出闡釋，其認為“information pertaining to medical service providers”、“a real-time communication channel”及“a time in the future”並不需要額外解釋，僅需依字面意義解釋即可，此外，對於專利權人所爭論的“presently available”及“present availability”提出見解，其不同意專利權人所作的較窄解釋並認為'550 專利中所稱的“available”旨在於呈現「狀態」，而非「現在有空」的解釋，況且“presently available”一詞並未出現於說明書中。最終，PTAB 同意 Teladoc 所提基於'396 專利的新穎性挑戰，認為本案爭議之請求項均為無效。該案後續雖由 Amwell 提出上訴，然而該上訴案亦隨者雙方的和解而宣告終止。

4、重點評析與後續觀察

Teladoc 雖較 Amwell 早進入遠距醫療市場，但在平台技術上的開發讓 Amwell 成為專利的領先者地位，在前述案件的歷程陳述中，Amwell 也以 Teladoc 對於該項技術的知情作為理由，認為 Teladoc 的侵權行為屬惡意侵權。然而，在'550 的專利收到 PTAB 無效的判定以及地方法院認為不符合適格性的判定後，讓 Teladoc 重新回到市場領

先者的地位，雙方第二波的戰事也自 2020 年正式揭開序幕，而以技術層面來看，浮上檯面的將會是機器人的遠距控制，也將是 Intouch 專利質量接受考驗的時刻，以下挑選 1:20-cv-01377 一案中的系爭專利 US 7,761,185 B2 進行介紹，見表 10。

表 10、US 7,761,185 B2 專利簡介⁴³

專利公告號	標題
US7761185B2	Remote presence display through remotely controlled robot
專利權終止日	申請人
2029/05/20	INTOUCH TECHNOLOGIES, INC
指定代表圖	
	
技術重點	
遠端醫師藉由遠端操控，可通過顯示器提供近端患者資訊及攝像資訊。	
其他資訊	
本篇專利最初係由 Intouch 轉讓予 Teladoc，主要發明人包含 Yulun Wang 等。	

‘185 專利所敘述的遠距醫療包含了患者、位於遠端的醫事人員及可由醫事人員操縱的機器人，遠端的醫事人員通過對機器人的控制，可將搭載於機器人上的攝影機拍攝患者及患者端螢幕（patient

⁴³ 資料來源：Google Patents，PSC 整理

monitor) 資訊，並將前述資訊呈現於遠端醫事人員所使用的顯示器 (visual display of the remote station) 上，見圖 22、23。在申請歷程中，審查人員於審查意見中提出 US2005/0,204,438A1 之前案 (發明人包含 Yulun Wang 等)，認為'185 專利不具新穎性或進步性，然而後續申請人以前案中並未揭示有患者端螢幕的要件且未有任何相關教示而成功克服審查意見。

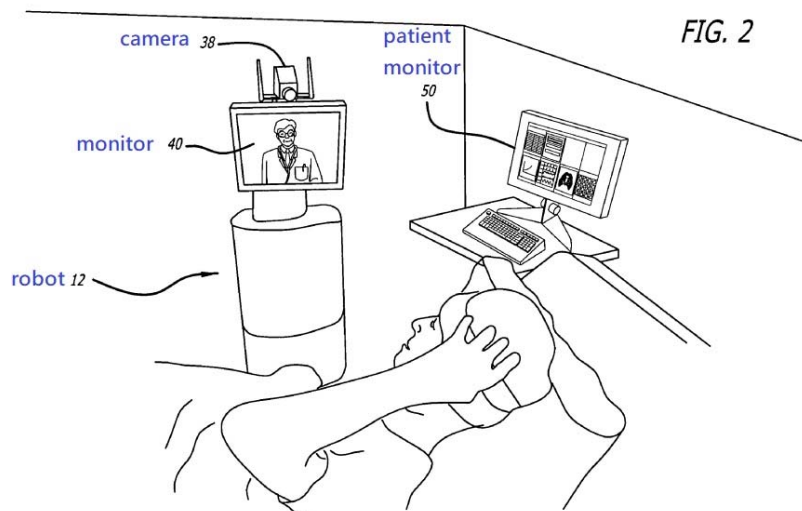


圖 22、US 7,761,185 B2 專利之第 2 圖

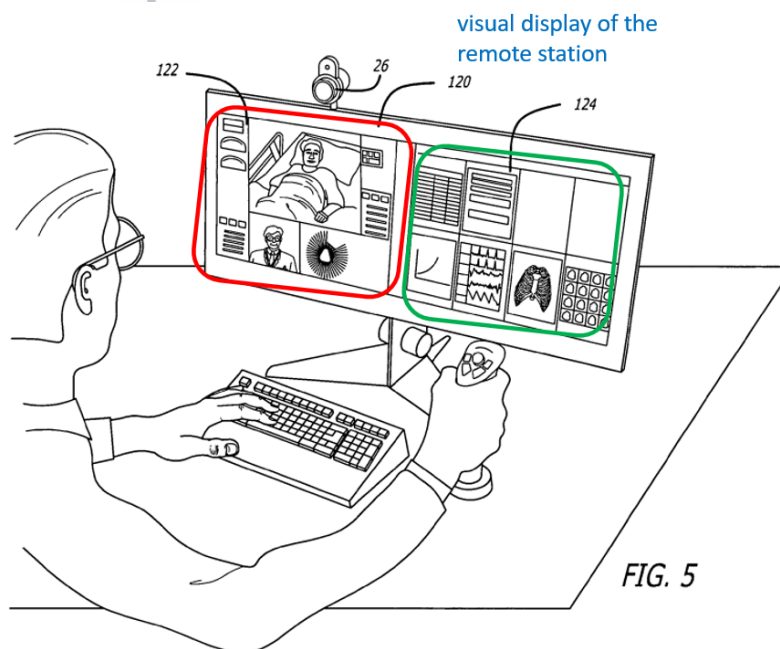


圖 23、US 7,761,185 B2 專利之第 5 圖

在訴狀中，Teladoc 以 Amwell 網頁中對於其遠距醫療推車之描述及產品說明書，指稱其醫療推車能提供患者之圖像或視訊予遠距之醫事人員，具體如患者端之耳鏡、心肺音音頻等資訊，對於'185 專利的權利項 1、3、4、6、7、10、11 及 13 構成引誘侵權(induced infringement) 及輔助侵權 (contributory infringement)。

Teladoc 此次的提告動作選擇在 Amwell 上市後的一個月，代表其向市場宣示其龍頭地位，另外，在 Teladoc 近期所作的一連串收購行為亦導致其成本快速增加，除擴大服務範圍及對象外，削弱美國當地競爭對手亦為有效的商業手段之一。另一方面，Amwell 吸取了前次的經驗，在 Teladoc 提出告訴的六個月內即對所有訴訟專利提出專利無效之挑戰，顯示其準備好迎接雙方的第二次戰爭。

從 Teladoc 與 Amwell 的訴訟歷程來看，IPR 都是雙方的重要策略之一，然而根據 USPTO 對於近年來 IPR 與和解比例所提供的相關統計結果，IPR 的立案對於和解的產生有提升之現象，見圖 24，另外在 IPR 判決上訴的效益層面，維持原判決（包含部分維持原判決）的比例高達 66.10%，見圖 25 之 IPR 案件上訴效益統計，顯示 IPR 的質量將直接影響後續訴訟的方向，相較於反訴（counterclaim）而言，IPR 不僅舉證責任較低並且避免高額的訴訟花費，確實為兼具經濟與訴訟效益之手法。

未來，台灣企業若想將其遠距醫療服務推廣至美國，建議事先充分地作好專利調研工作，例如自由實施性檢索（Freedom to operate search）、風險專利的識別與監控，甚至是預先作足目標專利的 IPR 準備等，都應在進入美國市場前完成，並應以訴訟發生為前提作足規劃與因應措施，有效地管理風險進而最大化其獲利。

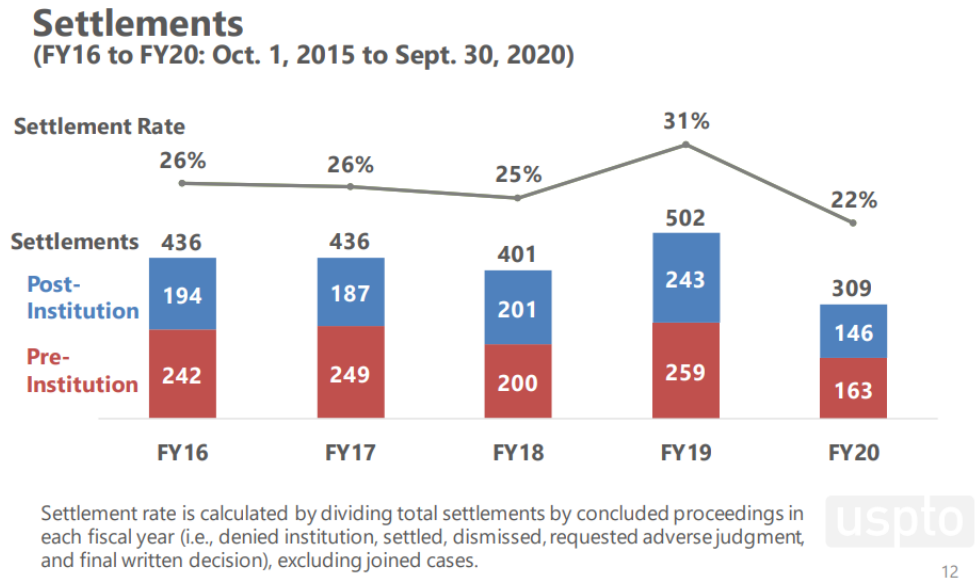


圖 24、近五年 IPR 立案與和解比例⁴⁴

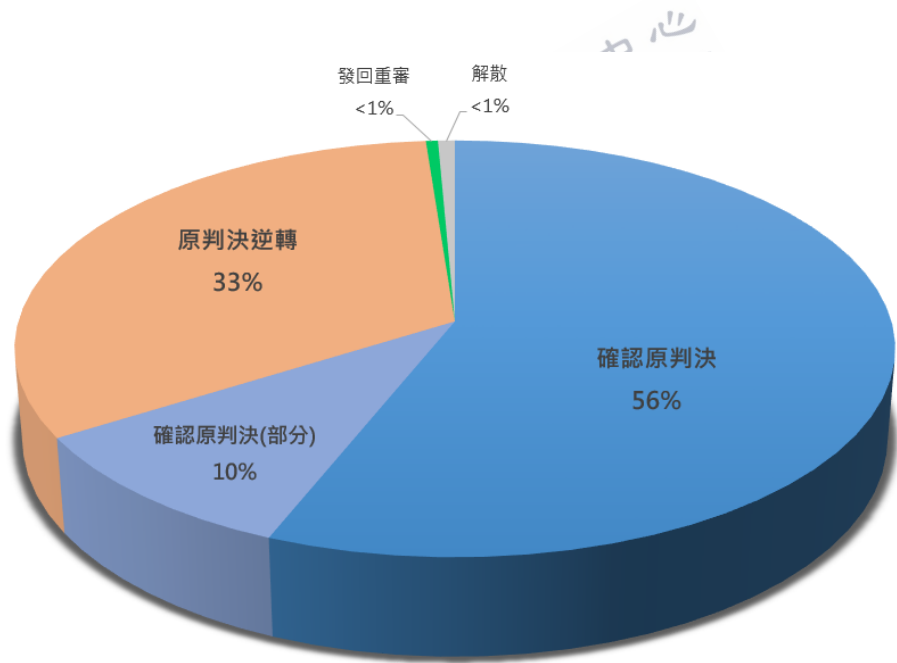


圖 25、IPR 案件上訴效益統計⁴⁵

⁴⁴資料來源：USPTO，
https://www.uspto.gov/sites/default/files/documents/ptab_aia_fy2020_roundup.pdf
⁴⁵資料來源：USPTO，PSC 整理

陸、結論

遠距醫療獨特的非接觸式特性成為新冠肺炎疫情中受矚目的重點技術，雖然台灣具有不遜於先進國家的軟、硬體實力，且智慧醫院的籌備也已臻完備，但談及服務模式卻仍有相當多的問題有待討論。從前述分析的結果來看，疫情加速了各國遠距醫療的發展，統計至2020年，中國大陸近5年在該領域的申請數量提升了58%，成為了美國以外的最大市場；另一方面，美國專利的申請數量仍以集團化的醫療設備商居首，其中，前三名的母公司分別為飛利浦、美敦力及嬌生，然而專利申請量較少的公司透過頻繁的收併購行為實質地進行延伸布局，如本報告中著重探討的Teladoc。再就專利的積極面而論，美國訴訟的結果往往成為了他國法官或專利從業者的參考或指引，統計至2021年5月，本領域所涉及的專利已有253件，其中侵權訴訟主要發生於東德州地方法院(24%)，而伴隨而來的多方複審聲請則來到15%，顯示出多方複審程序的應用與侵權訴訟間的緊密關係，多方複審的結果亦直接強調出專利申請品質的重要性。該領域中主司遠距照護的領導廠商(Teladoc與Amwell)，兩者的訴訟自2005年開始且持續蔓延至今，訴訟的結果勢必也會對其他廠商所規劃的服務模式帶來重要影響，值得有興趣投入此領域的企業投入關注。

近年來，台灣雖有各式聯盟的成立與跨領域的合作，但提供整合服務的企業仍是市場上較少的，且在民族性不愛以訴訟作為談判手段的前提下，該領域的技術交流與互動是相對緩慢的，可由台灣專利申請人主要為學研單位得到印證。以眼下的時機，台灣除可借鏡美國公司建立服務的經驗，考量國內健保制度與消費者需求作出調整，建立出屬於台灣的商業模式；放眼國際市場，除應關注訴訟動態，更應做足專利調研工作並同步進行布局規劃，以利早日能躍升至國際舞台。

柒、附件

- 一、Civil Action No. 15-cv-12274-IT United States District Court, D. Massachusetts. Am. Well Corp. v. Teladoc, Inc., 191 F. Supp. 3d 135, Decided Jun 13, 2016.
- 二、Case IPR2015-00924, Teladoc, Inc. v. Am. Well Corp., Final written description 35 U.S.C. § 318 Aug 23, 2016.
- 三、Case 1:20-cv-01377-UNA United States District Court, Delaware. Teladoc Health, Inc. v. Am. Well Corp., Complaint filed Oct 12, 2020.

psG 財團法人專利檢索中心
Patent Search Center

Civil Action No. 15-cv-12274-IT
United States District Court, D. Massachusetts.

Am. Well Corp. v. Teladoc, Inc.

191 F. Supp. 3d 135 (D. Mass. 2016)
Decided Jun 13, 2016

Civil Action No. 15-cv-12274-IT

06-13-2016

AMERICAN WELL CORP., Plaintiff, v.
TELADOC, INC., Defendant.

Christopher R. Dillon, Jeffrey Shneidman, Kevin J. DeJong, Fish & Richardson, P.C., Boston, MA, for Plaintiff. Paul W. Garrity, Tyler Baker, Michael V. Solomita, Sheppard, Mullin, Richter & Hampton LLP, New York, NY, Ryan M. Cunningham, Stephen C. Reilly, Sally & Fitch LLP, Boston, MA, for Defendant.

TALWANI, District Judge.

137 *137

Christopher R. Dillon, Jeffrey Shneidman, Kevin J. DeJong, Fish & Richardson, P.C., Boston, MA, for Plaintiff.

Paul W. Garrity, Tyler Baker, Michael V. Solomita, Sheppard, Mullin, Richter & Hampton LLP, New York, NY, Ryan M. Cunningham, Stephen C. Reilly, Sally & Fitch LLP, Boston, MA, for Defendant.

MEMORANDUM & ORDER

TALWANI, District Judge.

I. Introduction

Plaintiff American Well Corporation ("American Well"), the owner of Patent No. 7,590,550 ("550 patent"), alleges that Defendant Teladoc, Inc.'s ("Teladoc") telehealth¹ system infringes on at least four of the '550 patent's claims. Am. Compl.

[#41]. Before the court is Teladoc's Motion to Dismiss Plaintiff's Amended Complaint[#42] on the grounds that these four claims are directed to patent-ineligible subject matter under 35 U.S.C. § 101.

¹ "Telehealth is the use of technology to deliver health care, health information at a distance." What is telehealth?, U.S. Dep't Health & Human Servs., <http://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Telehealth/whatistelehealth.html> (last visited April 28, 2016).

American Well argues that underlying claim construction disputes preclude this court from addressing Teladoc's motion to dismiss at this stage. American Well is correct that it may sometimes be "desirable—and often necessary—to resolve claim construction disputes prior to a § 101 analysis [because] the determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter." Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can., 687 F.3d 1266, 1273–74 (Fed.Cir.2012). But addressing 35 U.S.C. § 101 at the outset may "conserve[] scarce judicial resources and spare[] litigants the staggering costs associated with discovery and protracted claim construction litigation." OIP Techs., Inc. v. Amazon.com, Inc., 788 F.3d 1359, 1364 (Fed.Cir.2015) (Mayer, J., concurring). In applying § 101 at the pleading stage, the court construes the patent claims in a manner most favorable to the non-moving party. See Content Extraction & Transmission LLC v. Wells Fargo

Bank, Nat'l Ass'n, 776 F.3d 1343, 1349 (Fed.Cir.2014), cert. denied, — U.S. —, 136 S.Ct. 119, 193 L.Ed.2d 208 (2015).

Construing the patent claims in this manner, the court finds the four claims are directed to patent-ineligible subject matter under 35 U.S.C. § 101. Accordingly, Teladoc's motion is ALLOWED.

II. Facts as Alleged in the Amended Complaint

a. Background

American Well owns an intellectual property portfolio directed at components *138 in a telehealth system. Am. Compl. ¶¶ 9-10. At issue is American Well's Patent No. 7,590,550 ("550 patent"), entitled "Connecting consumers with service providers." Id.¶¶ 11, 70. This patent was meant to address the limitations of earlier telehealth systems. Although earlier systems allowed patients to receive medical care without coming into an office to see a doctor face-to-face, they did not "allow patients to select from amongst a group of doctors who were available at the time to consult with them." Id.¶¶ 21, 24-25. This deficiency left medical care providers who had unexpected openings or cancellations without the ability to display themselves to prospective patients as available and left patients without the ability to locate currently available doctors when their normal physicians were unavailable. Id.

The patented technology monitors, records, and extends services based on the "present availability" of a medical care provider. Id.¶ 26. The technology "constantly monitors the availability of a provider for an engagement and thus, consumers receive immediate attention to address their questions or concerns, since the brokerage will connect them to available service providers." Id.¶ 27 (quoting '550 Patent col. 4 ll. 45-49). The technology activates a "communication channel" between "the patient and [an] available physician" when a patient requests an "on-demand, real-time consultation with a physician," id.(quoting '550 Patent at col. 2

ll. 62-67), through well-known communications protocols such as "Instant Messaging and Presence Service (IMPS), Session Initiation Protocol (SIP) for Instant Messaging and Presence Leveraging Extensions (SIMPLE), and the Extensible Messaging and Presence Protocol (XMPP)." Id.¶ 29 (quoting '550 Patent at col. 7 ll. 22-29). Additionally, the technology allows patients searching for medical care providers to filter those providers based on qualifications, experience, and present availability, thus allowing patients to make an informed decision about which provider to choose. Id.¶ 34.

The '550 Patent was issued on September 15, 2009. Id.¶ 40. In issuing the patent, the United States Patent and Trademark Office noted that there were other existing telehealth systems, but none of those systems contained the novel technological features of the '550 Patent. Id.¶ 37. Teladoc sought to obtain a license on American Well's patents, but American Well rejected Teladoc's request. Id.¶ 54.

b. The Claims at Issue

American Well asserts that Teladoc has infringed and continues to infringe without license on "at least claims 10, 11, 23, and 30 of the '550 patent." Am. Compl. ¶ 72. What is claimed by these paragraphs of the '550 Patent is:

10. A computer-implemented method comprises:

accessing a data repository that stores information pertaining to medical service providers, including present availability of the medical service providers for participating in a consultation;

receiving in a computer, indications that members of a pool of medical service providers have become presently available;

receiving in the computer, a request from a consumer of services to consult with a medical service provider;

identifying in the computer, an available member of the pool; and

establishing a real-time communication channel between the consumer of services and the identified member of the pool.

11. The method of claim 10 wherein:

the request includes an identification of a time in the future; and

identifying the member of the pool and establishing the communication channel take place at the identified time.

....

23. A computer program product residing on a computer readable medium for providing broker services to consumers and service providers, the computer program product comprising instructions for causing a computer to:

access a data repository that stores information pertaining to medical service providers, including present availability of the medical service providers for participating in a consultation; receive indications that members of a pool of medical service providers have become presently available;

receive a request from a consumer of services to consult with a medical service provider;

identify an available member of the pool; and

establish a real-time communication channel between the consumer of services and the identified member of the pool.

....

30. An apparatus comprising:

a processor; and

a computer program product residing on a computer readable medium for providing broker services to consumers and service

providers, the computer program product comprising instructions for causing the processor to:

access a data repository that stores information pertaining to medical service providers, including present availability of the medical service providers for participating in a consultation;

receive indications that members of a pool of medical service providers have become presently available;

receive a request from a consumer of services to consult with a medical service provider;

identify an available member of the pool; and

establish a real-time communication channel between the consumer of services and the identified member of the pool.

'550 Patent col. 27 ll. 25-44, col. 29 ll. 12-29, col. 30 ll. 34-51.

For purposes of this motion, the court construes the terms "presently available" and "present availability" to mean "instantly available" or "available right now" as suggested by American Well. See Hearing Mot. Dismiss Am. Compl. Tr. 20:1-2 [#52] (asking the court to think of present availability as obtaining "instantaneous access" to a doctor).²

² American Well avers that the terms "data repository," "stores information," and "communication channel" must be construed before the court can rule on any dispositive motion. However, American Well has proffered no proposed construction for those terms.

III. Discussion

a. The Amended Complaint Asserts Infringement on Four Claims

American Well argues that this court need not reach the question of patent-eligible subject matter because Teladoc has only challenged four of thirty claims of the '550 Patent and that it is Teladoc's burden to show that there are no valid claims in the patent or that the four claims are representative of the other twenty-six. American Well's Mem. Opp'n *140 Teladoc's Mot. Dismiss 10-11 [#44]. Teladoc disagrees, arguing that the Amended Complaint[#41] in no way puts in issue the remaining twenty-six claims of the '550 Patent. Teladoc's Reply Pl.'s Opp'n Teladoc's Mot. Dismiss 1 [#48].

The Introduction to the Amended Complaint[#41] states that the '550 Patent is infringed by the Teladoc system. Am. Compl. ¶ 11. However, the specific factual allegations concerning "Teladoc's Infringing Telehealth Platform" reference Claim 10 only. Id.¶ 49. Under the heading "Teladoc's Infringement," American Well asserts that "[a]s set forth in Count I , Teladoc has infringed and continues to infringe claims in the '550 patent," and, in Count I, American Well states only that Teladoc has infringed the '550 Patent, by products "that are covered by *at least* claims 10, 11, 23, and 30 of the '550 patent...." Id.¶¶ 67, 72 (emphasis added). In sum, the "statement of the claim showing the pleader is entitled to relief," see Fed. R. Civ. P. 8(a)(2), cannot be read to allege that Teladoc has infringed the '550 Patent other than Claims 10, 11, 23 and 30.

Nor does this case require a determination of whether pleading consistent with former Form 18 of the Federal Rules of Civil Procedure is sufficient to withstand a motion to dismiss.³ As American Well notes, the Federal Circuit has held that, under Form 18, "a plaintiff need not even identify which claims it asserts are being infringed" to give proper notice in a complaint. In re Bill of Lading Transmission & Processing Sys. Patent Litig., 681 F.3d 1323, 1335 (Fed.Cir.2012).

But even if Form 18 did not require identification of *which claims* are being infringed, it did require that the plaintiff allege that the defendant *has infringed the patent*. The Amended Complaint[#41] does not so allege except as to the four identified claims.

³ Prior to December 1, 2015, Form 18 of the Federal Rules of Civil Procedure set forth a sample complaint for patent infringement, and the form required: an allegation of jurisdiction; a statement that the plaintiff owns the patent; a statement that the defendant has infringed the patent by making, selling, or using the device embodying the patent; a statement that the plaintiff has given the defendant notice of its infringement; and demand for injunction and damages. Rule 84 further provided that the "forms ... suffice under [the Federal Rules of Civil Procedure]." Form 18 and Rule 84 were abrogated effective December 1, 2015.

Teladoc notes further that the remaining twenty-six claims are entirely different from the four claims at issue here. See Teladoc's Reply Pl.'s Opp'n Teladoc's Mot. Dismiss 1 [#48]. American Well argues in response that it is Teladoc that has the burden to show that all the claims are "adequately represented by the representative claim" in that they relate to the same abstract idea and fail to include any inventive concept. American Well's Mem. Opp'n Teladoc's Mot. Dismiss 11 [#44] (citing Cronos Techs., LLC v. Expedia, Inc., No. 13-1538-LPS, 2015 WL 5234040, at *2-3 (D.Del. Sept. 8, 2015)). This argument is correct as to the four claims challenged—that is, to the extent that Teladoc's challenge to Claims 11, 23 and 30 is based on its challenge to Claim 10, Teladoc needs to show that Claims 11, 23 and 30 are adequately represented by Claim 10. But Teladoc does not have the burden to address claims where American Well has not alleged any infringement. Cronos Techs., LLC offers no support to the contrary.

b. Claims 10, 11, 23 and 30 are Not Directed to Patent-Eligible Subject Matter

i. Legal Background

As a threshold requirement for patent protection,¹⁴¹ the subject matter of a *¹⁴¹patent must be patentable under 35 U.S.C. § 101 ; otherwise, the patent is invalid. Under § 101, any "new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" is eligible for patent protection. Congress contemplated that "patent laws would be given wide scope," Diamond v. Chakrabarty, 447 U.S. 303, 308, 100 S.Ct. 2204, 65 L.Ed.2d 144 (1980), but three categories of patent-ineligible concepts remain unpatentable: laws of nature, physical phenomena, and abstract ideas, including mental processes. In re Bilski, 545 F.3d 943, 952 (Fed.Cir.2008) (en banc), aff'd sub nom . Bilski v. Kappos, 561 U.S. 593, 130 S.Ct. 3218, 177 L.Ed.2d 792 (2010). Although "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas," these three patent-ineligible exceptions prevent "monopolization" of the "basic tools of scientific and technological work" and the impeding of innovation. Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 132 S.Ct. 1289, 1293, 182 L.Ed.2d 321 (2012).

The Supreme Court specifically addressed the third exception to patent eligibility—abstract ideas—in Alice Corp. Pty. Ltd. v. CLS Bank Int'l, — U.S. —, 134 S.Ct. 2347, 189 L.Ed.2d 296 (2014). Though abstract concepts are typically patent-ineligible, "an invention is not rendered ineligible for patent simply because it involves an abstract concept." Alice, 134 S.Ct. at 2354 (citing Diamond v. Diehr, 450 U.S. 175, 187, 101 S.Ct. 1048, 67 L.Ed.2d 155 (1981)). Consequently, the court must "distinguish between patents that claim the building blocks of human ingenuity and those that integrate the building blocks into something more, therefore transforming them into a patent-

eligible invention." Id.(quoting Mayo, 132 S.Ct. at 1303, 1294 (internal citation and quotation marks omitted)).

To make this determination, the Supreme Court uses a two-step framework. The court first determines "whether the claims at issue are directed to" an abstract concept. Id. at 2355 (citing Mayo, 132 S.Ct. at 1296–97). If the claims are directed to an abstract idea, the court second considers each claim both individually and "as an ordered combination" to determine whether the elements "transform the nature of the claim" into a "patent-eligible application." Id.(quoting Mayo, 132 S.Ct. at 1297, 1298) (citations omitted). In performing this second step, the court searches for an "inventive concept" or evidence to show that the claim is "significantly more" than a patent on an abstract concept. Id.(quoting Mayo, 132 S.Ct. at 1294, 1297).

Merely introducing a computer into the claims does not satisfy the second step. Id. at 2357 (distinguishing between simply implementing an abstract idea on a computer (patent ineligible) and using a computer to improve an existing technological process that requires additional steps (patent eligible)). The Supreme Court ultimately found in Alice that "mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." Id. at 2358 ; see id. at 2352, 2360 (finding patent ineligible a "computer-implemented scheme for mitigating settlement risk" where the claims only required "generic computer implementation" and thus "add[ed] nothing of substance to the underlying abstract idea"); see also id. at 2360 (stating that generic computer terms in claim, such as "data storage unit" and "communications controller" do not render the patent eligible); DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245, 1256 (Fed.Cir.2014) (quoting *142 Alice, 134 S.Ct. at 2358) ("[A]fter Alice, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible. The bare fact that a

computer exists in the physical rather than purely conceptual realm is 'beside the point' ") (internal citation omitted).

However, an abstract concept that "purport[s] to improve the functioning of the computer itself" or "effect an improvement in any other technology or technical field" is patent-eligible. Alice, 134 S.Ct. at 2359 ; see also Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1339 (Fed.Cir.2016) (finding that software patent claims are not directed to abstract idea because they are not merely "added post-hoc to a fundamental economic practice," but rather "are directed to a specific implementation of a solution to a problem in the software arts"); DDR Holdings, 773 F.3d at 1257–58 (Fed.Cir.2014) (declaring claims eligible because they are "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks"); cf. Mortg. Grader, Inc. v. First Choice Loan Servs. Inc., 811 F.3d 1314, 1325 (Fed.Cir.2016) (stating that claims failed to satisfy the second step of Alice because "[n]othing in the asserted claims purport[ed] to improve the functioning of the computer itself or effect an improvement in any other technology or technical field" or "solve a problem unique to the internet"). But, merely "claiming the improved speed or efficiency inherent with applying the abstract idea on a computer [does not] provide a sufficient inventive concept." Intellectual Ventures I LLC v. Capital One Bank (USA), 792 F.3d 1363, 1367 (Fed.Cir.2015) (citing Bancorp, 687 F.3d at 1278) (finding patent-ineligible "claims limited to dynamic presentation of data—that is, that the claimed invention in 'real time' customizes [a] web page based on the information it knows about the particular viewer.").

American Well argues that Teladoc has not demonstrated a risk that the '550 Patent will preempt future technologies which utilize the concept of a patient requesting to have a consultation with a doctor. The preemption inquiry focuses on whether the patent "would risk

disproportionately tying up the use of the underlying ideas" and "undergirds [section] 101 jurisprudence." Alice, 134 S.Ct. at 2354, 2358 ; Bilski, 561 U.S. at 611–12, 130 S.Ct. 3218 ("Allowing petitioners to patent risk hedging would pre-empt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea."); DDR Holdings, 773 F.3d at 1259 (finding patent claims at issue eligible in part because they "do not attempt to preempt every application of the idea of increasing sales [and instead] recite a specific" method). The risk of preemption is not dispositive of patent eligibility but "helps to inform the [Alice] two-step analysis," Vehicle Intelligence & Safety LLC v. Mercedes – Benz USA, LLC, 635 Fed.Appx. 914, 918 (Fed.Cir.2015), and accordingly, is considered as part of that analysis.

ii. Alice Step 1: The claims at issue are directed to an abstract idea

Under the Alice analysis, American Well's claims are directed to a patent-ineligible abstract idea: setting up consultations between patients and available healthcare providers. Claim 10 below is representative of the other claims at issue: Claim 11 is dependent on Claim 10, Claim 23 implements the steps of Claim 10 on a computer program, and Claim 30 implements the steps of Claim 10 on an apparatus. Teladoc argues that the asserted claims cover a "fundamental economic practice long prevalent" in commerce, Bilski 561 U.S. at 611, 130 S.Ct. 3218, the *143 abstract idea of a patient requesting and having a consultation with an available medical service provider. Specifically, Teladoc equates Claim 10 to (i) a receptionist maintaining in an appointment book information about which doctors are currently available, (ii) a patient calling that office, and (iii) the receptionist identifying an available doctor and either placing the patient on a telephone call with that doctor or scheduling a later appointment.⁴

⁴ American Well argues that Teladoc's "appointment book" analogy was considered by the U.S. Patent and

Trademark Office and rejected before the patent was issued, noting differences between the American Well technology and the prior art. However, the question "of whether a particular invention is novel is wholly apart from whether the invention falls into a category of statutory subject matter." Diehr, 450 U.S. at 190, 101 S.Ct. 1048 (internal quotation marks omitted). Even if American Well's technology is novel and contains technical features not present in the prior art, this alone does not save the claims at issue from constituting an abstract idea.

American Well argues the analogy put forward by Teladoc is flawed because it does not account for the "presently available" limitation. Namely, a receptionist in the pre-internet era could not have continually tracked and *instantaneously* updated a list of doctors that became presently available, for example, if those doctors' appointments had suddenly finished early or cancelled. American Well contends that because the concept of tracking the instant availability of doctors is not found in the pre-internet era, it is not in the category of long-standing, fundamental economic practices that generally constitute abstract ideas.

In Alice, the Supreme Court declined to "delimit the precise contours of the 'abstract ideas' category in this case." 134 S.Ct. at 2357. Justice Sotomayor encouraged the court to "adhere to the view that any claim that merely describes a method of doing business does not qualify ... under § 101," Alice, 134 S.Ct. at 2360 (Sotomayor, J., concurring) (internal quotation marks omitted) (quoting Bilski, 561 U.S. at 614, 130 S.Ct. 3218 (Stevens, J., concurring)). However, the Court has not gone so far so to adopt a "categorical business-method exception." Content Extraction, 776 F.3d at 1347 (Fed.Cir.2014). In Alice, the Court found it sufficient that the idea in the claims, intermediated settlement, was a long-standing, fundamental economic practice, but did not elaborate any further. 134 S.Ct. at 2356–57 ; see also Bilski, 561

U.S. at 599, 130 S.Ct. 3218 (ruling that claims directed to method of hedging risk were directed to an abstract idea). The Federal Circuit too has had little trouble invalidating patent claims directed to long-standing, fundamental economic practices. See, e.g., buySAFE, Inc. v. Google, Inc., 765 F.3d 1350, 1355 (Fed.Cir.2014) (stating that idea in patent was abstract because the claims were "squarely about creating a contractual relationship ... [a concept] beyond question of ancient lineage.").

However, the Federal Circuit has not limited what constitutes abstract ideas to long-standing economic practices. The court has held that claims generally "involving methods of organizing human activity" are abstract. Intellectual Ventures, 792 F.3d at 1367 (ruling that a method of tracking and storing information was directed to an abstract idea); see also Content Extraction, 776 F.3d at 1347 (noting that "claims directed to the mere formation and manipulation of economic relations may involve an abstract idea"); cf. Mortg. Grader, 811 F.3d at 1324 (finding the claims abstract because they merely recited the concept of anonymous loan shopping—"borrower applies for a loan, a third party calculates the borrower's credit *144 grading, lenders provide loan pricing information to the third party ... the borrower discloses its identity to a lender."). The court has also used a broader definition of "abstract," stating that an abstract concept is an "idea, having no particular concrete or tangible form." Ultramercial, Inc. v. Hulu, LLC, 772 F.3d 709, 715 (Fed.Cir.2014) (holding that the claims were directed to the abstract idea of "receiving copyrighted media, selecting an ad, offering the media in exchange for watching the selected ad, displaying the ad, allowing the consumer access to the media, and receiving payment from the sponsor of the ad").

Notably, an idea's novelty cannot by itself save that idea from being abstract. In Ultramercial, the court rejected the argument that "abstract ideas remain patent-eligible under § 101 as long as they

are new ideas, not previously well known, and not routine activity." 772 F.3d at 714. The court said that "the addition of merely novel or non-routine components to the claimed idea [does not turn] an abstraction into something concrete." Id. at 715 ; see also Morsa v. Facebook, Inc., 77 F.Supp.3d 1007, 1014 (C.D.Cal.2014), aff'd, 622 Fed.Appx. 915 (Fed.Cir.2015) ("Morsa fails to recognize that while a claim's implementation of a 'fundamental, long-standing, well-known concept' is highly relevant to the Court's abstractness inquiry, it is not dispositive. The dispositive inquiry is whether the concept to which a claim is drawn has "no particular concrete or tangible form." (quoting Ultramercial, 772 F.3d at 715)).

Here, Claims 10, 11, 23, and 30 are abstract, even if the court accepts for purposes of this motion that there is no pre-internet analog for the tracking of the present availability of doctors, such that it is not a long-standing, fundamental economic practice. The claims nevertheless embody the abstract idea of connecting a patient with an available doctor. The claims involve a method of "organizing human activity," Intellectual Ventures, 792 F.3d at 1367, and they constitute an "idea, having no particular concrete or tangible form." Ultramercial, 772 F.3d at 715. The preemption concerns raised by American Well underscore this point. Allowing American Well to patent the idea of using a computer to connect a patient with an available doctor would effectively grant a monopoly over an abstract idea.

American Well argues that its patent claims are equivalent to the claims found to be eligible in DDR Holdings, LLC v. Hotels.com L.P., 773 F.3d 1245 (Fed.Cir.2014). In DDR Holdings, the Federal Circuit found that the claims which described "systems and methods of generating a composite web page that combines certain visual elements of a 'host' website with content of a third-party merchant" were not directed to an abstract concept. Id. at 1248. The court rejected the analogy that the claims were like a "store within a store," a kiosk for selling a third-party's

merchandise in a larger store. Id. at 1258. The court instead found that the patent concept—an internet user being transported to a different but similar-looking website using a hyperlink—in a real-world context would be more akin to a customer walking up to a kiosk in a store and being transported physically to a different venue (even if that venue looked like the original store). Id. Thus, there was no real-world analog. The court stated that the claims, in relation to claims found abstract in prior cases, "stand apart because they do not merely recite the performance of some [known] business practice" and emphasized that the invention sought "to overcome a problem specifically arising in the realm of computer networks." Id. at 1257 (noting that the claims addressed the problem of a host website losing visitors when they click on a hyperlink and are transported to a separate third-party site).¹⁴⁵ The claims here are different. They do not purport to improve the functioning of computer or internet technology itself, nor do they address an internet-centric challenge.⁵ They only implement a novel idea using admittedly known computer technology, which by itself cannot save the claims from being abstract. See Hayden W. Gregory, Following the Bilski Near Miss, Can Business Method Patents Survive Alice?, 7 No. 1 Landslide 2, 64 (2014) (The impact of Alice is "illustrated in the Court's favorable citation to the Solicitor General's brief arguing that improved organization of human activities by computer implementation does not add enough—the claim must purport to improve the functioning of the *computer itself*, or effect an improvement in another technology." (emphasis in the original)).

⁵ American Well correctly notes that the claims may solve the problem of a doctor's receptionist—or, as here, virtual receptionist—not knowing exactly when doctors are presently available. But this is a real world problem; not an internet-centric problem.

iii. Alice Step 2: The claims at issue do not amount to an inventive concept

Moving to Step 2 of the Alice analysis, the claims at issue do not contain an inventive concept. Instead, they merely add generic and previously-known computer components to an abstract idea. The claims describe routine performance of a computer—such as accessing and "stor[ing] information" on a "data repository," identifying medical service providers in a "pool," sending and receiving communications over a "computer," and using the Internet to do all of the above, including setting up a "communication channel"—that do not transform an abstract idea into patent-eligible subject matter. See Alice, 134 S.Ct. at 2360 (noting that generic computer terms in claim, such as "data storage unit" and "communications controller" do not render the patent eligible); Ultramercial, 772 F.3d at 716 ; Intellectual Ventures, 792 F.3d at 1368 ("The recited elements, e.g., a database, a user profile ... and a communication medium, are all generic computer elements.").

⁶ The patent specifications confirm that the computer elements in the claim are generic components. See '550 Patent col. 3 ll. 55-col. 4 ll. 14 (computer contains components "commonly known in the art"); col. 6 ll. 31-58, col. 7 ll. 22-29 (tracking model transfers information using "one or more well-known presence protocols"); col. 9 ll. 34-37, col. 11 ll. 45-col. 13 ll. 13 (system establishes a real-time communication channel through well-known communication channels).

American Well asserts that Claims 10, 11, 23, and 30 in the '550 Patent do more than simply add computer components to an abstract idea. Instead, the patent's provision of real-time communication between patients and presently-available doctors solved a technological problem inherent in prior telehealth technologies: the asynchronous communication between patients and doctors. Thus, American Well argues, its claims are similar

to those found patent eligible in DDR Holdings and are "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." DDR Holdings, 773 F.3d at 1257–58.⁷

⁷ The court's analysis focuses on the representative claim, Claim 10. But, the other three claims add nothing further. Claim 11 is dependent on 10, and Claims 23 and 30 are merely directed to a computer program (23) and an apparatus with a processor (30). The recasting of a "method" as a "computer program" or an apparatus with a generic "processor" and a "computer program" adds nothing to the eligibility analysis. See CyberSource Corp. v. Retail Decisions, Inc., 654 F.3d 1366, 1375 (Fed.Cir.2011) ; see also Alice, 134 S.Ct. at 2360 (the "claims to a computer system and a computer-readable medium fail for substantially the same reasons."). Claims 23 and 30 additionally describe "a computer program product residing on a computer readable medium for providing broker services to consumers and service providers." '550 Patent col. 29 ll. 12-14, col. 30 ll. 36-38. This provision of brokerage—or, in other words, intermediary—services adds nothing further as that concept is analogous to what the Supreme Court described and found patent-ineligible in Alice. 134 S.Ct. at 2356 (finding claims ineligible where they involved a "method of exchanging financial obligations between two parties using a third-party intermediary to mitigate settlement risk.").

American Well's comparison to DDR Holdings misses the mark; the claims do ¹⁴⁶not solve a problem rooted in internet technology. In DDR Holdings, the court noted that the claims "specify how interactions with the Internet are manipulated to yield a desired result ... [i]nstead of a computer network operating in its normal, expected manner" 773 F.3d at 1258. Here, on the other hand, the claims do not specify a manipulation of

interactions with the Internet. Instead, they append what is admittedly well-known technology to an abstract idea. See '550 Patent col. 6 ll. 31-58, col. 7 ll. 22-29 (tracking model transfers information using "one or more well-known presence protocols"); col. 9 ll. 34-37, col. 11 ll. 45-col. 13 ll. 13 (system establishes a real-time communication channel through well-known communication channels) (emphasis added); Mortg. Grader, 811 F.3d at 1325 (noting that "[n]othing in the asserted claims purport[ed] to improve the functioning of the computer itself" or "effect an improvement in any other technology or technical field" or "solve a problem unique to the internet" (quoting Alice, 134 S.Ct. at 2359)).⁸

⁸ American Well relies on the specification to show how its "tracking module" is technologically inventive. '550 Patent col. 7 ll. 22-29. The court can consider the specification, see Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed.Cir.2005) (a "person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim ... but in the context of the entire patent, including the specification"), but any limitations that the specification describes must be in the claim itself. Intellectual Ventures, 792 F.3d at 1370 (rejecting argued limitation because the "claims [were] not so limited"). Here, the claims reference the storing of information on which doctors are presently available, but they do not mention any tracking module or any limitations related to that module. See Accenture Global Servs., GmbH v. Guidewire Software, Inc., 728 F.3d 1336, 1345 (Fed.Cir.2013) ("The important inquiry for a § 101 analysis is to look to the *claim* ") (emphasis added).

Admittedly, the technology as spelled out in the claims at issue does, at least for purposes of this motion, allow patients to obtain healthcare more expeditiously than with prior telehealth systems.

This, however, does not transform the claims' abstract business practice into a sufficiently inventive concept, because claims describing methods that merely "automate or otherwise make more efficient" traditional methods or techniques described in prior art do not render those claims patent eligible. OIP Techs., 788 F.3d at 1363 ; see also Bancorp Servs., 687 F.3d at 1278 (noting that improved speed or efficiency inherent with applying the abstract idea on a computer does not provide a sufficient inventive concept).

IV. Conclusion

The court finds that Claims 10, 11, 23, and 30 of the '550 Patent are invalid as directed to patent-ineligible subject matter. Teladoc's Motion to Dismiss Plaintiff's Amended Complaint[#42] is ALLOWED. The Amended Complaint[#41] is hereby DISMISSED.

IT IS SO ORDERED.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TELADOC, INC.,
Petitioner,

v.

AMERICAN WELL CORP.,
Patent Owner.

Case IPR2015-00924
Patent 7,590,550 B2

Before BRIAN J. McNAMARA, MICHAEL J. FITZPATRICK, and
DANIEL J. GALLIGAN, *Administrative Patent Judges*.

GALLIGAN, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318

IPR2015-00924
Patent 7,590,550 B2

I. INTRODUCTION

Teladoc, Inc. (“Petitioner”) filed a Petition (“Pet.”) requesting *inter partes* review of claims 10, 11, 23, and 30 of U.S. Patent No. 7,590,550 B2 (“the ’550 patent,” Ex. 1001). Paper 1. American Well Corporation (“Patent Owner”) did not file a Preliminary Response. We instituted trial on one of Petitioner’s six asserted grounds, namely, whether claims 10, 11, 23, and 30 are unpatentable as anticipated by Haq.¹ Paper 7 (“Dec. to Inst.”).

During the trial, Patent Owner filed a Response (Paper 10, “PO Resp.”), and Petitioner filed a Reply (Paper 19, “Reply”). In addition, Patent Owner filed a Motion to Exclude evidence. Paper 32. Patent Owner also filed Observations regarding certain cross-examination testimony of Petitioner’s declarant Mr. Scott Silverman (Paper 33), and Petitioner filed a Response to Patent Owner’s Observations (Paper 35).

An oral hearing was held on May 12, 2016, a transcript of which appears in the record. Paper 41 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). We conclude Petitioner has demonstrated by a preponderance of the evidence that claims 10, 11, 23, and 30 are unpatentable. *See* 35 U.S.C. § 316(e) (“In an *inter partes* review instituted under this chapter, the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.”).

A. *Related Matters*

The parties indicate that the ’550 patent was at issue in *American Well Corp. v. Teladoc, Inc.*, No. 1:15-cv-12274-IT (D. Mass). Paper 6, 1;

¹ US Patent No. 7,412,396; Aug. 12, 2008 (filed July 30, 2001) (“Haq,” Ex. 1002).

IPR2015-00924
Patent 7,590,550 B2

Paper 9, 2. According to Petitioner, the district court dismissed this case because it determined claims 10, 11, 23, and 30 are directed to patent-ineligible subject matter. Paper 42, 1.

Petitioner has filed two other petitions for *inter partes* review challenging various claims of the '550 patent. Paper 42, 1–2; IPR2016-00100; IPR2016-01167. Petitioner has also filed a petition for *inter partes* review challenging all claims of related Patent 7,835,928 B2. Paper 42, 1–2; IPR2016-00101. The Board instituted trial on certain grounds in IPR2016-00100 and IPR2016-00101.

B. The '550 Patent (Ex. 1001)

The '550 patent generally relates to a system and method for receiving requests from consumers to consult with service providers and establishing a connection between consumers and service providers. Ex. 1001, Abst. The challenged claims are directed specifically to medical service providers.

Challenged claims 10, 23, and 30 are independent. Claim 11 depends from independent claim 10. Claims 10 and 11 are reproduced below:

10. A computer-implemented method comprises:
 - accessing a data repository that stores information pertaining to medical service providers, including present availability of the medical service providers for participating in a consultation;
 - receiving in a computer, indications that members of a pool of medical service providers have become presently available;
 - receiving in the computer, a request from a consumer of services to consult with a medical service provider;
 - identifying in the computer, an available member of the pool; and
 - establishing a real-time communication channel between the consumer of services and the identified member of the pool.

IPR2015-00924
Patent 7,590,550 B2

11. The method of claim 10 wherein:
the request includes an identification of a time in the
future; and
identifying the member of the pool and establishing the
communication channel take place at the identified time.

Ex. 1001, 27:25–44.

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, “[a] claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.” 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131 (2016). In determining the broadest reasonable construction, we presume that claim terms carry their ordinary and customary meaning. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). This presumption may be rebutted when a patentee, acting as a lexicographer, sets forth an alternate definition of a term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Petitioner proposed constructions for three phrases of the ’550 patent: “information pertaining to medical service providers,” “a real-time communication channel,” and “a time in the future.” *See* Pet. 13–17. Patent Owner did not file a Preliminary Response and, therefore, did not propose constructions prior to institution. In our Decision to Institute, we determined that these phrases, as well as the remaining terms in the challenged claims, did not require express constructions. *See* Dec. to Inst. 4–6.

IPR2015-00924
Patent 7,590,550 B2

1. *Presently Available and Present Availability*

During the trial, Patent Owner proposed constructions for the following phrases in the challenged claims: “have become presently available” and “present availability.” PO Resp. 15–23. Patent Owner contends that “[t]he term[s] presently and currently are used interchangeably in the ’550 patent and the file history” and that they are synonyms and mean “right now.” *Id.* at 16. Therefore, according to Patent Owner, these phrases should be construed to mean, respectively, “have become *currently* available” and “*current* availability.” *Id.* at 16, 23 (emphases added). In its Reply, Petitioner disputes Patent Owner’s proposed constructions and argues that the plain and ordinary meaning of “presently available” should apply, which Petitioner construes as “being available at the present.” Reply 8.

Patent Owner argues that the prosecution history confirms its proposed interpretations because the term “presently” was added to overcome prior art patent publication 2004/0019579 (“Herz”) that allegedly disclosed availability in terms of willingness to accept referrals rather than present availability for participating in a consultation. PO Resp. 17–18 (citing Ex. 1005 at 166–67). In particular, during prosecution, the applicant stated:

Herz fails to disclose “determining in the computer, which of the service providers are *presently available*”

Herz’s “availability list” is merely indicative of the candidate’s willingness to accept client referrals. For this reason, *Herz*’s “availability list” fails to disclose a “candidate[’s]” “*present availability*” for “participating in a consultation.” That is, in *Herz*, a “candidate” who is “looking for clients” would be listed on the “availability list” even though the “candidate” is “offline” or otherwise not “currently available” to engage with a client.

IPR2015-00924
Patent 7,590,550 B2

Ex. 1005, 166–67 (brackets and emphases in original).

Patent Owner argues the specification of the '550 patent confirms that “presently” available means “currently” available. PO Resp. 19–21. In particular, Patent Owner argues the following passage from the '550 patent describes six different availability states, only the first being one in which a provider is “presently available”:

Providers participating in the brokerage network can have several states of availability over time. States in which the provider may be available may include [1] on-line, in which the provider is logged-in and can accept new engagements in any mode, [2] on-line (busy), in which the provider is logged-in but is currently occupied in a video or telephonic engagement, and [3] scheduled, in which the provider is offline but is scheduled to be online at a designated time-point and can pre-schedule engagements for it. While not online, the provider can take messages as in offline state. Other states may include [4] off-line, in which the provider is not logged in but can take message based engagements (i.e., asynchronous engagements), [5] out of-office, in which the provider is not accepting engagements or messages, and [6] standby, in which the provider is offline and can be paged to Online status by the brokerage network if traffic load demands it (in some examples, consumers see this state as offline).

PO Resp. 19–20 (quoting Ex. 1001, 6:59–7:8 (numbering added by Patent Owner)). Patent Owner contends that a provider is available, but not “presently available,” in states 2, 3, 4, and 6, and is not available at all in state 5. PO Resp. 19–20.

The phrase “presently available” does not appear in the specification of the '550 patent. Further, the cited passage from the '550 patent does not limit the possible states of availability to only certain states. Rather, the cited passage discloses that “[s]tates in which the provider may be available *may include*” various states. Ex. 1001, 6:59–61 (emphasis added). The '550

IPR2015-00924
Patent 7,590,550 B2

patent, therefore, uses open-ended language rather than describing these states as the only possible availability states. Although a provider who is on-line, logged-in, and able to accept new engagements in any mode may be one example of a “presently available” provider, the specification does not limit the meaning of “presently available” as such.

To the extent “presently” and “currently” are synonyms, as Patent Owner contends (PO Resp. 16), there is no need to substitute “currently” for “presently.” On the other hand, if “currently” has a narrower meaning than “presently,” the intrinsic record does not demonstrate that such a narrowing limitation should be imported into the challenged claims. Indeed, dictionaries cited by Patent Owner to support its position that “presently” and “currently” are synonyms and mean “right now” provide several other definitions that undermine Patent Owner’s position. *See* Exs. 2004–06. Addressing this, Patent Owner states: “‘Presently’ also has a second contradictory meaning, ‘in a short time; soon,’ Ex. 2004, or ‘in a little while,’ Ex. 2006; however the intrinsic evidence is consistent only with this first definition, ‘have become currently available.’” PO Resp. 17 n.4. We do not agree that the intrinsic record compels the narrower interpretation. As noted above, the ’550 patent specification does not even use the term “presently available,” let alone provide a definition for it. The cited portions of the prosecution history demonstrate that certain claims were amended to recite “presently available” or “present availability” to distinguish from prior art disclosing availability in terms of “willingness to accept client referrals.” Ex. 1005, 166. Thus, the prosecution history informs an ordinarily skilled artisan that a general willingness to accept referrals is not encompassed within “presently available.” The prosecution history does not compel the

IPR2015-00924
Patent 7,590,550 B2

conclusion that “presently available” means only “currently available” in the sense of available “right now.”

Patent Owner further argues a person of ordinary skill in the art “would recognize that part of the novelty of [the ’550 patent] was a system for giving a patient ‘an on-demand, real-time consultation with a physician’ who could give ‘immediate attention’ and an ‘immediate response’ to patients.” PO Resp. 21 (citing Ex. 1001, 2:63–64, *et seq.*; Ex. 2001 at ¶¶ 15, 23). Patent Owner also argues:

To permit the “on-demand” “immediate” system described in the specification, as described above, the [person of ordinary skill in the art] would recognize that the challenged claims rely on identifying which medical providers are currently available; this is what is meant by “receiv[ing] indications that members of a pool of medical service providers have become presently available.”

PO Resp. 21.

Contrary to Patent Owner’s assertions, however, the challenged claims do not “rely on identifying which medical providers are currently available.” Rather, independent claim 10 recites “identifying in the computer, an *available* member of the pool.”² (Emphasis added).

According to Patent Owner’s characterization of the states of availability in the ’550 patent, such an “available” provider can include one who is “currently occupied” or even “offline” so long as he is scheduled to be online later, for example. See PO Resp. 20; see also Ex. 1001, 6:60–7:8

² Counsel for Patent Owner confirmed this during the oral hearing. See Tr. 73:1–4 (“So the database is collecting information from the pool. But as I said earlier, the identification step that we talk about there, we’re saying an available member of the pool does not mean that it’s necessarily choosing a presently available member.”).

IPR2015-00924
Patent 7,590,550 B2

(providing open-ended list of states of availability). Therefore, Patent Owner's arguments that the challenged claims require identifying providers who are "presently available" are not commensurate with the scope of the claims and do not support Patent Owner's proposed claim constructions.

Patent Owner also relies on the Declaration of Dr. Ronald S. Weinstein (Ex. 2001, "Weinstein Declaration") in support of its proposed constructions. Dr. Weinstein testifies: "A medical doctor familiar with telehealth at the time of the creation of the ['550] patent, such as myself, would have understood 'presently available' as that term is used in the ['550] patent as meaning that the medical service provider is prepared to pay immediate attention to the case." Ex. 2001 ¶ 15. Dr. Weinstein further opines that "'[p]resently available' means currently available—set to go, in the context of this type of medical service." *Id.* ¶ 19. As noted above, the phrase "presently available" does not appear in the specification of the '550 patent, and Dr. Weinstein does not cite any disclosure from the '550 patent supporting his opinion as to the meaning of "presently available" in the challenged claims. Therefore, Dr. Weinstein's testimony as to the meaning of "presently available" "at the time of the creation" of the '550 patent provides us little, if any, meaningful insight as to the broadest reasonable interpretation of "presently available." See 37 C.F.R. § 42.65(a) ("Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.").

We reject Patent Owner's constructions for "have become presently available" and "present availability" as unreasonably narrow and determine that those limitations do not require express constructions. All remaining

IPR2015-00924
Patent 7,590,550 B2

claim terms or phrases recited in claims 10, 11, 23, and 30 need not be construed expressly.

B. Anticipation by Haq

Petitioner contends that Haq anticipated claims 10, 11, 23, and 30. Pet. 18–25.

1. Haq Disclosure

Haq describes a “virtual clinic” that “enables a patient to request consultation with a medical professional.” Ex. 1002, 4:61–65. Figures 5 and 6 of Haq are reproduced below:

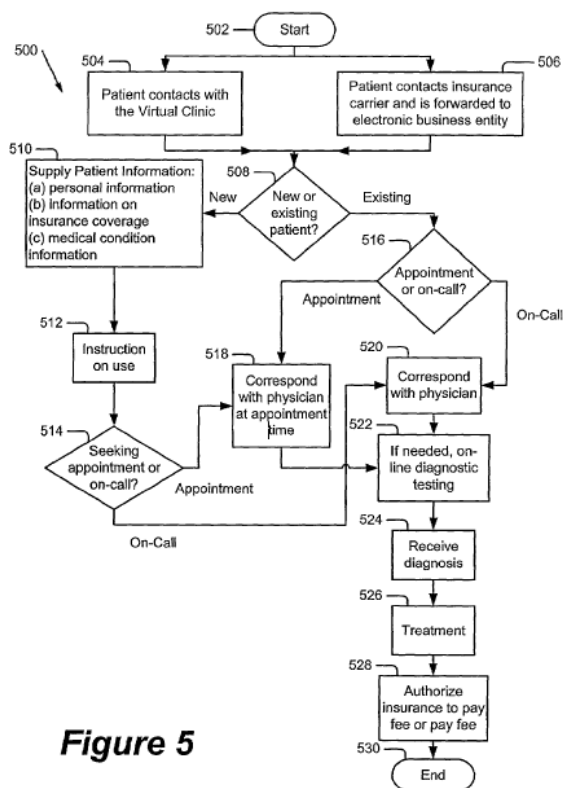


Figure 5

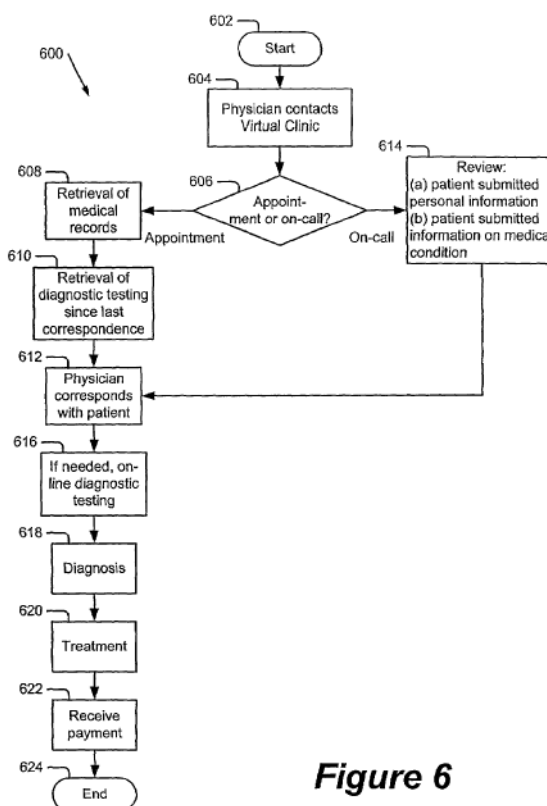


Figure 6

IPR2015-00924
Patent 7,590,550 B2

Figures 5 and 6 are flow charts illustrating the use of the “virtual clinic” from the perspectives of a patient and a physician, respectively. Ex. 1002, 4:8–11, 9:38–10:40.

Haq discloses that “[i]nitially, the physician contacts the virtual clinic, step 604, informing the virtual clinic whether he is going on-line to conduct an appointment or is available for on-call conferences, step 606.” Ex. 1002, 10:23–26, Fig. 6. A patient can request an appointment or request to speak with an on-call physician. *Id.* at 10:1–8. If a patient requests an on-call physician, “then the patient’s information on his/her medical condition is used to determine a suitable physician and the virtual clinic determines whether that physician is on-call at that time.” *Id.* at 10:8–12. “If the physician is on-call, the patient may correspond directly with the physician, step 520.” *Id.* at 10:12–14. Haq further discloses that, once a medical professional is selected, “the virtual clinic establishes communications with the medical professional (typically a physician) and then either coordinates the communications link between the physicians and patient or simply tells the patient or physician how to contact the other party directly.” *Id.* at 5:19–24.

2. Claim 10

Petitioner presents an analysis of Haq accompanied by a claim chart to explain how Haq discloses the steps recited in claim 10. Pet. 19–22.

Patent Owner does not dispute Haq discloses the following steps of claim 10: “receiving in the computer, a request from a consumer of services to consult with a medical service provider”; “identifying in the computer, an available member of the pool”; and “establishing a real-time communication channel between the consumer of services and the identified member of the

IPR2015-00924
Patent 7,590,550 B2

pool.” *See generally* PO Resp. 30–45. Consistent with the evidence presented in this proceeding, we find Haq discloses these limitations. *See* Pet. 19–22.

Claim 10 also recites “accessing a data repository that stores information pertaining to medical service providers, including present availability of the medical service providers for participating in a consultation” and “receiving in a computer, indications that members of a pool of medical service providers have become presently available.” Petitioner contends, *inter alia*, Haq’s disclosure regarding physician availability for on-call conferences discloses these limitations. *See* Pet. 21–22; *see also* Reply 10–21 (addressing Patent Owner’s arguments to the contrary). In particular, Haq discloses:

FIG. 6 shows a flow chart 600 of an embodiment of a method of the present invention from a physician’s perspective. The method starts out generally at step 602. Initially, the physician contacts the virtual clinic, step 604, informing the virtual clinic whether he is going on-line to conduct an appointment or is available for on-call conferences, step 606.

Ex. 1002, 10:21–26 (cited at Pet. 21).

We find Haq’s disclosure of physicians’ initially contacting the virtual clinic to inform it that they are “available for on-call conferences” discloses the virtual clinic’s receiving indications that members of a pool of medical service providers (i.e., “physicians”) “have become presently available,” as recited in claim 10, so that patients can be connected to those physicians. *See* Ex. 1002, 10:21–26. Indeed, this on-call availability information is used by the virtual clinic of Haq to connect patients seeking on-call care, rather than seeking an appointment, with physicians who are available to be contacted in such cases. Ex. 1002, 9:63–10:14. Haq discloses that the

IPR2015-00924
Patent 7,590,550 B2

virtual clinic “determine[s] a suitable physician” and “determines whether that physician is on-call at that time.” *Id.* at 10:11–12. Therefore, we find Haq also discloses “accessing a data repository that stores information pertaining to medical service providers, including present availability of the medical service providers for participating in a consultation.” In particular, the virtual clinic accesses data pertaining to its physicians, including their “availab[ility] for on-call conferences,” which is within the scope of “present availability . . . for participating in a consultation.” *See id.* at 10:1–26.

In its Response, Patent Owner argues Haq’s disclosure regarding on-call availability does not disclose the limitations of claim 10 reciting “presently available” and “present availability.” PO Resp. 30–45.

We address Patent Owner’s arguments below.

a. Presently Available and Present Availability

Patent Owner’s arguments are largely based on the premise that “present availability,” as recited in claim 10, does not encompass “on-call” availability, as disclosed in Haq. *See* PO Resp. 30–45. Patent Owner argues the ’550 patent’s “specification and file history distinguish the state of being available [sic] for on-call conferences from ‘have become presently available.’” *Id.* at 22. The specification of the ’550 patent does not use either the term “on-call” or the phrase “presently available” to describe a state of availability, and, therefore, it does not distinguish between “on-call” and “presently available.” Nor do the cited portions of the prosecution history use the term “on-call.” *See* Ex. 1005, 165–70. Rather, the portions of the prosecution history relied on by Patent Owner show an attempt to distinguish the amended claims from prior art that allegedly discloses an

IPR2015-00924
Patent 7,590,550 B2

“‘availability list’ [that] is merely indicative of the candidate’s willingness to accept client referrals.” Ex. 1005, 166.

During prosecution, the applicant stated:

Herz’s “availability list” is merely indicative of the candidate’s willingness to accept client referrals. For this reason, Herz’s “availability list” fails to disclose a “candidate[’s]” “present availability” for “participating in a consultation.” That is, in Herz, a “candidate” who is “looking for clients” would be listed on the “availability list” even though the “candidate” is “offline” or otherwise not “currently available” to engage with a client. This is illustrated by the fact that “once the candidate has indicated his availability, his interaction with the system is over.” (Herz, ¶0018.)

Ex. 1005, 166–67 (brackets and emphases in original). Haq’s disclosure relating to on-call availability is not merely disclosing a provider’s willingness to accept client referrals. Rather, Haq discloses being “available for on-call conferences.” Ex. 1002, 10:26. As Patent Owner acknowledges, Haq’s virtual clinic “provides on-call doctors for urgent problems.” PO Resp. 1. Haq’s “on-call” physicians are presently available for the specific purpose of conversing with patients seeking urgent care, and, therefore, Haq provides the disclosure of “present availability” applicant alleged was lacking in the prior art during prosecution.

Patent Owner also relies on the ’550 patent’s disclosure pertaining to availability tracking to distinguish the disclosure of Haq from the limitations of the claims. See PO Resp. 8–9, 26, 33, 37–38. According to Patent Owner, “Haq discloses no mechanism for the virtual clinic to receive indications that the on-call physician has become presently available,” whereas the ’550 patent “has detailed disclosures of active and passive

IPR2015-00924
Patent 7,590,550 B2

tracking of a medical service provider's present availability.” PO Resp. 33 (citing Ex. 1001, 6:31–58, 7:22–29).

As an initial matter, the cited passages do not mention tracking *present* availability, as asserted by Patent Owner. Rather, these passages concern tracking mere availability. See Ex. 1001 at 6:31–58, 7:22–29; see also Ex. 1001 at 3:55–4:8. For example, these passages describe tracking availability in terms of being “available to be contacted by consumers” and “available to interact with consumers.” *Id.* at 3:60–61, 6:36–37.

The '550 patent explains that availability can be tracked actively or passively:

The computerized system 110 includes an availability or presence tracking module 112 for tracking the availability of the service providers 130. Availability or presence is tracked actively or passively. In an active system, one or more of the service providers 130 provides *an indication to the computerized system 110 that the one or more service providers are available to be contacted by consumers 120* and an indication of the mode by which the provider may be contacted. In some examples of an active system, the provider's computer, phone, or other terminal device periodically provides an indication of the provider's availability (e.g., available, online, idle, busy) to the system 110 and a mode (e.g., text, voice, video, etc.) by which he can be engaged. In a passive system, the computerized system 110 presumes that the service provider 130 is available by the service provider's actions, including connecting to the computerized system 110 or registering the provider's local phone number with the system. In some examples of a passive system, the system 110 indicates the provider 130 to be available at all times until the provider logs off, except when the provider is actively engaged with a consumer 120.

Ex. 1001 at 3:55–4:8 (emphasis added).

The '550 patent further discloses:

IPR2015-00924
Patent 7,590,550 B2

Referring now to FIG. 3, the computerized system 110 tracks 142 the availability of providers 130 and consumers 120. When a provider 130 logs 144 into the system 100, the provider 130 indicates 146 (such as by setting a check box or selecting a menu entry or by responding to a voice prompt) to the tracking module 112 that he or she is *available to interact with consumers* 120. . . . The tracking module 112 can also infer 152 a provider's availability and modes of engagement by the provider's previously provided profile information and the terminal device through which the provider connects to the system.

Id. at 6:31–58 (emphasis added).

To the extent these passages inform a person of ordinary skill in the art as to the meaning of “indications that members of a pool of medical service providers have become presently available,” they show that such indications include an indication that a provider has become available to interact with consumers or to be contacted by consumers. Haq discloses such indications by disclosing that “[i]nitially, the physician contacts the virtual clinic, step 604, informing the virtual clinic whether he is going on-line to conduct an appointment or *is available for on-call conferences*, step 606.” Ex. 1002, 10:23–26 (emphasis added). Haq discloses providing patients the option of requesting an appointment or urgent care. *See id.* at 5:42–44, 6:10–15, 10:1–8. Haq discloses that “if a patient wishes to correspond with [a] physician pursuant to an appointment, an appointment is set up through the virtual clinic.” *Id.* at 10:4–6. However, if “the patient wishes to converse with a physician on-call, then the patient’s information on his/her medical condition is used to determine a suitable physician and the virtual clinic determines whether that physician is on-call at that time.” *Id.* at 10:9–12. Haq also discloses that, “[i]f the physician is on-call, the patient may correspond directly with the physician.” *Id.* at 10:12–14. Patent

IPR2015-00924
Patent 7,590,550 B2

Owner acknowledges Haq's virtual clinic "provides on-call doctors for urgent problems." PO Resp. 1; *see also* PO Resp. 38–39 (Haq discloses "for urgent care passing the patient to the on-call physician."). Therefore, the physician-provided indications of availability for on-call conferences disclosed in Haq are consistent with indications that a provider has become available to interact with consumers or to be contacted by consumers, as described with respect to availability tracking in the '550 patent. *See* Ex. 1001, 3:55–4:8, 6:31–58, 7:22–29.

Patent Owner argues that being "available for on-call conferences" in Haq

is most analogous to what [the '550 patent] calls its "standby" mode wherein a provider can be off-line after having notified the system that he or she is "available for on-call conferences," and where the provider "can be paged to Online status by the brokerage network if traffic load demands it."

PO Resp. 33 (citing Ex. 1001, 7:5–8). Patent Owner further argues that "[d]uring prosecution, the inventor confirmed that such off-line providers in this standby mode are not presently available." PO Resp. 33.

First, as noted above, the specification of the '550 patent and the cited portions of the file history do not use the term "on-call," much less equate the "standby" state of availability with on-call availability. Second, Haq does not disclose that a physician who "is available for on-call conferences" is "off-line." Rather, Haq states that "the physician contacts the virtual clinic, step 604, informing the virtual clinic whether he is going on-line to conduct an appointment or is available for on-call conferences, step 606." Ex. 1002, 10:23–26. This is similar to the availability tracking of the '550 patent, discussed above, in which providers indicate to the system that they

IPR2015-00924
Patent 7,590,550 B2

are “available to be contacted by consumers” or are “available to interact with consumers.” Ex. 1001, 3:60–61, 6:36–37.

Patent Owner also relies on the testimony of Dr. Weinstein, who opines that

[a] medical service provider could be on-call, and available within a previously agreed upon time interval, without being “presently available.” A doctor could be “available for on-call conferences” per Haq but not “presently available” because the on-call doctor is treating another patient, attending to other business, or even on the golf course.

Ex. 2001 ¶ 21. Dr. Weinstein further testifies that “[a]t the time of the invention of the [’550] patent, no telemedicine system to that date would have equated ‘available for on-call conference’ as actually being synonymous with ‘presently available.’” *Id.* ¶ 23.

Dr. Weinstein does not cite any disclosure from the ’550 patent supporting his opinion that “presently available,” a phrase that is not used, much less defined, in the specification of the ’550 patent excludes on-call availability as disclosed in Haq. Nor does Dr. Weinstein cite supporting evidence demonstrating that “presently available” was a phrase that would have been readily understood to a person of ordinary skill in the relevant art at the time of the invention of the ’550 patent to exclude on-call availability as described in Haq. *See* 37 C.F.R. 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”). We have considered Dr. Weinstein’s testimony, but we do not find it probative of a distinction between being “on-call,” as described in Haq, and being “presently available,” as recited in the challenged claims.

IPR2015-00924
Patent 7,590,550 B2

In sum, we find Haq’s disclosure of physician “availab[ility] for on-call conferences” (Ex. 1002, 10:26) to be within the broadest reasonable interpretation of “present availability of the medical service providers for participating in a consultation,” as recited in claim 10. *See* Pet. 21–22. Likewise, we find the physician-provided indications of availability for on-call conferences disclose indications that “medical service providers have become presently available,” consistent with the broadest reasonable interpretation of “presently available.” *See id.*

b. “Pool of Medical Service Providers”

Patent Owner argues:

The petition does not address the claim limitation requiring that indications of present availability be received for members of a pool of medical providers. The words “indications,” “members,” and “providers” are plural. The [’550 patent] system relies on tracking the present availability of a **pool** of medical service providers because that is the only way to ensure that some provider is available right now. Haq is focused on scheduling an appointment between an identified physician and the patient (and for urgent care passing the patient to the on-call physician); so, Haq has no need to track the present availability of a pool of providers.

PO Resp. 38–39. We disagree.

We find Petitioner has proven Haq discloses “receiving in a computer, indications that members of a pool of medical service providers have become presently available,” as recited in claim 10. The multiple physicians in Haq’s virtual clinic disclose “a pool of medical service providers,” as recited in claim 10. The virtual clinic tracks the “pool” of providers through each provider’s interaction with the system, such as described with reference to Figure 6, illustrating “an embodiment of a method of the present invention from a physician’s perspective.” Ex. 1002, 10:21–23.

IPR2015-00924
Patent 7,590,550 B2

To the extent it is Patent Owner’s contention that the virtual clinic in Haq interacts with only one physician, this is not a reasonable reading of Haq, which explicitly defines “virtual clinic” as “a professional association such as a corporation or partnership . . . that hires or otherwise contracts with physicians.” *Id.* at 4:34–39. Haq further discloses that, “[o]nce the virtual clinic establishes sufficient working relationships with physicians and/or insurance carriers and/or employers, it creates a presence on the network by, for example, creating a Web page that enables a patient to request consultation with a medical professional.” *Id.* at 4:61–65. Haq still further discloses that “[t]he virtual clinic maintains a list of the physicians with their specialities [sic], their qualifications and relevant information (board certification, school and year of graduation, experience and expertise, etc.).” *Id.* at 6:6–9. Therefore, Haq is explicit that the virtual clinic deals with multiple providers, i.e., a “pool.”

c. Multiple Embodiments

Patent Owner argues Petitioner improperly relies on multiple embodiments and has not shown that there is a single embodiment containing all claim elements, and, therefore, Petitioner has not shown Haq anticipated the challenged claims. PO Resp. 23–30; *see Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008) (“[U]nless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.”). We disagree.

IPR2015-00924
Patent 7,590,550 B2

Patent Owner acknowledges that a particular passage in Haq (9:38–10:40) “describes *an embodiment* contained in two figures, Fig. 5 & 6 that are, respectively, ‘from a patient’s perspective’ and ‘from a doctor’s perspective.’” PO Resp. 29 n.6. We find that this “embodiment” alone discloses all limitations of the challenged claims. *See* Pet. 21–22. For example, the virtual clinic receives “indications that members of a pool of medical service providers have become presently available” when physicians contact the virtual clinic to inform it that the physician “is available for on-call conferences,” as discussed above. Ex. 1002, 10:21–26. The virtual clinic of Haq discloses receiving “a request from a consumer of services to consult with a medical service provider” when a patient requests “an appointment or an on-call contact with a physician.” *Id.* at 10:1–8. Haq discloses “the patient’s information on his/her medical condition is used to determine a suitable physician and the virtual clinic determines whether that physician is on-call at that time.” *Id.* at 10:9–12. Thus, Haq discloses a “pool of medical service providers,” as recited in claim 10, from which “a suitable physician” is identified. In addition, Haq discloses determining if the chosen “physician is on-call at that time” (*id.* at 10:11–12), thereby disclosing accessing stored information, including “present availability of the medical service providers for participating in a consultation.” Haq further discloses that, “[i]f the physician is on-call, the patient may correspond directly with the physician, step 520.” *Id.* at 10:12–14. Thus, Haq discloses “identifying in the computer, an available member of the pool,” and “establishing a real-time communication channel between the consumer of services and the identified member of the pool.”

IPR2015-00924
Patent 7,590,550 B2

In the context of its anticipation arguments, we do not find improper Petitioner’s citations to other relevant passages in Haq describing the “virtual clinic,” such as information maintained by the virtual clinic or the communication channels by which patients and doctors may correspond through the virtual clinic. *See, e.g.*, Pet. 18–22 (citing, *inter alia*, Ex. 1002, 6:6–9 (describing that the “virtual clinic maintains a list of the physicians” with associated information about the physicians), 2:35–38, 10:59–62 (describing exemplary communication channels between patient and physician)).

As an example of allegedly incompatible embodiments, Patent Owner points to two passages in Haq it contends are describing different ways to select a doctor. PO Resp. 27–29. In one passage, Haq discloses:

The virtual clinic maintains a list of the physicians with their specialties [sic], their qualifications and relevant information (board certification, school and year of graduation, experience and expertise, etc.).

When a patient accesses the virtual clinic, he/she is asked to choose a physician from among those on their panel, or if the patient does not have a preference or needs urgent care and his/her personal choice is not available for providing urgent care, the virtual clinic connects him/her to an appropriate physician in the specialty which the patient is seeking.

Ex. 1002, 6:6–15. In another passage, Haq discloses:

Referring back to step 508, likewise, if the patient is an existing patient, he is questioned whether he seeks an appointment or an on-call contact with a physician. From step 514 and step 516, if a patient wishes to correspond with physician pursuant to an appointment, an appointment is set up through the virtual clinic with both the patient and physician, such that the patient may correspond with the physician at the appointment time, step 518. If from step 514 or step 516 the patient wishes to converse with a physician on-call, then the

IPR2015-00924
Patent 7,590,550 B2

patient's information on his/her medical condition is used to determine a suitable physician and the virtual clinic determines whether that physician is on-call at that time.

Id. at 10:1–12.

Patent Owner argues that the first passage discloses selecting a physician based on patient preferences (“the specialty which the patient is seeking”) whereas the second passage discloses using information about the patient's medical condition, not patient preferences, to select a physician. PO Resp. 28–29. Patent Owner contends Petitioner relies on these “alternate embodiment[s]” to disclose “accessing a data repository that stores information pertaining to medical service providers, including present availability of the medical service providers for participating in a consultation,” as recited in claim 10.

We do not find one passage to be exclusive of the other, as suggested by Patent Owner. The first cited passage is from a portion of the “Detailed Description” providing general information about the “virtual clinic” before the figures are discussed in detail. *See* Ex. 1002, 4:26–6:15. The second cited passage describes exemplary interactions with the virtual clinic from a patient's perspective and from a physician's perspective. *See id.* at 9:38–10:40, Figs. 5 and 6. Both passages disclose selecting an “appropriate” or “suitable” physician based on information supplied by the consumer, such as a particular specialty or a medical condition. Elsewhere, Haq discloses the correlation between condition of the patient and specialty of the physician, explaining that a medical professional is selected “based on an appropriate set of criteria that can include, but is not limited to, the patient's current location (for legal licensure constraints), *condition (for specialization)*, and

IPR2015-00924
Patent 7,590,550 B2

time (availability of the medical professional within a time zone having those working hours).” Ex. 1002, 5:11–19 (emphasis added).

As discussed above, we find Petitioner has shown that the embodiment in Figures 5 and 6 of Haq, disclosing the operation of the virtual clinic, anticipated the challenged claims. See Pet. 21–22. Moreover, Petitioner’s reliance on additional teachings in Haq to further support its challenge is not improper as we find these teachings would further inform a person of ordinary skill in the art as to the operation of the virtual clinic.

d. Claim 10 Conclusion

Petitioner has demonstrated by a preponderance of the evidence that claim 10 is unpatentable as anticipated by Haq.

3. Claim 11

Patent Owner contends Haq does not disclose that “the request includes an identification of a time in the future,” as recited in claim 11. PO Resp. 45. Patent Owner argues Haq merely discloses that a consumer requests an appointment, following which an appointment is set up, but “does not disclose how a ‘time in the future’ is identified.” *Id.* (citing Ex. 1002, 10:1–6). We disagree.

As an initial matter, we note that Patent Owner appears to concede that Haq discloses a request from a patient identifying a particular time for a desired appointment when it argues that “Haq, in contrast, assumes a classical model of an appointment with a particular provider, who may not be available *at the time the patient wants to meet*, and whose identity is determined at the time the patient requests the appointment.” PO Resp. 46 (emphasis added). A request from a patient seeking an appointment identifying “the time the patient wants to meet” discloses a request to

IPR2015-00924
Patent 7,590,550 B2

consult with a medical service provider that “includes an identification of a time in the future.”

Haq discloses that “if a patient wishes to correspond with [a] physician pursuant to an appointment, an appointment is set up through the virtual clinic with both the patient and physician, such that the patient may correspond with the physician *at the appointment time*.” Ex. 1002, 10:4–8 (emphasis added). We find Haq’s disclosure regarding setting up an appointment discloses a request from a consumer that “includes an identification of a time in the future.”

Even if an appointment time is not originally proposed by the consumer/patient but, rather, is proposed based on a doctor’s schedule, as Patent Owner argues (*see* PO Resp. 45), we find Haq discloses a request from the consumer including an identification of a time in the future. In particular, Haq discloses “an appointment is set up through the virtual clinic *with both the patient and physician*.” Ex. 1002, 10:5–7. Therefore, at the very least, the patient in Haq informs the virtual clinic that an appointment at a particular time is acceptable, whether proposed by the patient, the virtual clinic, or the physician. Such a negotiation for an appointment between the consumer and the virtual clinic and the doctor, therefore, may include multiple “requests” from the consumer, at least one of which is within the broadest reasonable interpretation of a “request from a consumer of services to consult with a medical service provider” that includes “an identification of a time in the future.”

Patent Owner also argues “claim 11 requires two steps ‘take place ***at the identified time***’: (1) ‘identifying the member of the pool,’ and (2) ‘establishing the communication channel.’” PO Resp. 46. Although we

IPR2015-00924
Patent 7,590,550 B2

agree with Patent Owner that claim 11 requires both the “identifying” step and the “establishing” step to “take place at the identified time,” we do not agree that an earlier, additional identification of “the member of the pool” is precluded by claim 11. Therefore, claim 11 is not limited to a situation in which the “identity [of the provider] is not known until a ‘future time’ based on who, at that *future time* is currently available,” as argued by Patent Owner. *See id.*

As explained above, Haq discloses setting up an appointment pursuant to a consumer request. *See* Ex. 1002, 10:1–8. Haq also discloses the limitation of claim 10 reciting “establishing a real-time communication channel between the consumer of services and the identified member of the pool.” For example, Haq states that “[t]he virtual clinic then provides the proper connectivity between the selected physician and the patient or otherwise enables them to communicate.” *Id.* at 6:64–66. Patent Owner does not dispute that Haq discloses this limitation of claim 10. As Patent Owner argues, claim 11 requires the establishing step to be performed “at the identified time.” PO Resp. 45–46. We find that, in the case of an appointment, Haq discloses that the “communication channel between the consumer of services and the identified member of the pool” is established at the appointment time. Ex. 1002, 10:5–8 (emphasis added) (“[A]n appointment is set up through the virtual clinic with both the patient and physician, *such that the patient may correspond with the physician at the appointment time . . .*”).³

³ During the oral hearing, counsel for Patent Owner confirmed Haq discloses making a connection at the time of the appointment. Tr. 37:7–17 (emphasis added) (“The point is this is all about the question of how you make the

IPR2015-00924
Patent 7,590,550 B2

Patent Owner argues that, in the case of an appointment, Haq discloses identifying the provider at the time of the request, not at the time of the appointment. PO Resp. 46–47. As we explain above, however, claim 11 requires “identifying the member of the pool . . . at the identified time,” but it does not preclude an earlier identification of that member. Even if Haq discloses that the appointment is arranged at the time the request is made and that the physician is identified at that time, as Patent Owner argues, we find Haq discloses identifying the physician at the appointment time because a connection could not be made between the patient and the physician absent such an identification. The identification in Haq at the time of the appointment may not be the *first* identification of the physician for that appointment, but it is still an identification that is necessary to establish a connection at the time of the appointment.

Because claim 11 recites certain steps that must be performed at a certain time, rather than precluding certain steps from being performed at an earlier time, we find Haq’s disclosure of arranging an appointment and connecting patient and physician at the appointment time discloses the limitations of claim 11.

Petitioner has demonstrated by a preponderance of the evidence that claim 11 is unpatentable as anticipated by Haq. *See* Pet. 20–22.

connection. *Haq is saying when we set up this virtual clinic, we envision that either the connection can be facilitated through the virtual clinic at the time of the appointment or otherwise, or they can correspond directly with each other without the virtual clinic being involved. That’s what this is getting at.”*)

4. *Claims 23 and 30*

Independent claim 23 is directed to a “computer program product comprising instructions for causing a computer to” perform steps corresponding to the steps of claim 10. Similarly, independent claim 30 is directed to an apparatus having a processor and a “computer program product comprising instructions for causing the processor to” perform steps corresponding to the steps of claim 10. Petitioner contends, “[t]he virtual clinic includes a software program running on a computer system that is connected to the network, the software comprises instructions to implement the features of the virtual clinic.” Pet. 22 (citing Ex. 1002, 3:39–46, 4:39–50, 7:52–58, 8:16–39). For example, Haq discloses that “[t]he virtual clinic can be a hardware device that is connected to a suitable network, or a software program running on a computer system that is connected to the network, or any combination there between.” Ex. 1002, 4:39–42.

We find that Petitioner has shown that Haq discloses the additional subject matter recited in claims 23 and 30.

Petitioner has demonstrated by a preponderance of the evidence that claims 23 and 30 are unpatentable as anticipated by Haq.

III. MOTION TO EXCLUDE

Patent Owner filed a Motion to Exclude Exhibit 1012, which is a declaration by Scott Silverman, and portions of Exhibits 1013 and 1014, which are, respectively, excerpts from the transcript and the complete transcript, of the deposition of Patent Owner’s declarant Dr. Weinstein. Paper 32. Because we do not rely on Exhibits 1012, 1013, or 1014 in any manner, we dismiss Patent Owner’s Motion to Exclude as moot.

IV. CONCLUSION

For the foregoing reasons, we find that Petitioner has demonstrated by a preponderance of the evidence that claims 10, 11, 23, and 30 of the '550 patent are unpatentable under 35 U.S.C. § 102 as anticipated by Haq.

V. ORDER

Accordingly, it is:

ORDERED that claims 10, 11, 23, and 30 of Patent 7,590,550 B2 are unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude is dismissed as moot; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2015-00924
Patent 7,590,550 B2

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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

TELADOC HEALTH, INC.,	)	
	)	
Plaintiff,	)	
v.	)	C.A. No. _____
	)	
AMERICAN WELL CORPORATION,	)	DEMAND FOR JURY TRIAL
	)	
Defendant.	)	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Teladoc Health, Inc., for its complaint of patent infringement against Defendant American Well Corporation alleges as follows:

THE PARTIES

1. Plaintiff Teladoc Health, Inc. (“Teladoc” or “Plaintiff”) is a corporation organized and existing under the laws of the State of Delaware. Teladoc’s principal place of business is in Purchase, New York.

2. On information and belief, Defendant American Well Corporation (“Amwell” or “Defendant”) is a corporation incorporated in the State of Delaware with its principal place of business in Boston, Massachusetts.

NATURE OF ACTION

3. This is a civil action against Defendant for patent infringement under the United States patent laws, as amended, 35 U.S.C. §§ 101 *et seq.* (the “Patent Laws”). This action arises out of Defendant’s making, using, selling, offering to sell, and/or importing into the United States certain devices covered by Teladoc’s patents and/or inducing or contributing to its customers’ direct infringement. Accordingly, Teladoc seeks monetary and injunctive relief under the Patent Laws.

JURISDICTION AND VENUE

4. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. Upon information and belief, Amwell is incorporated in the state of Delaware, and conducts business and has committed a tort in this District, including without limitation Defendant's patent infringement, which causes harm in this State and in this District. Therefore, this Court has personal jurisdiction over Amwell.

6. Venue is proper in this District under 28 U.S.C. § 1400(b) with respect to Amwell because, on information and belief, Amwell has committed acts of infringement in this District, and is incorporated in the state of Delaware.

BACKGROUND

A. The Technology

7. Teladoc is recognized as the world leader in virtual care and offers the only comprehensive virtual care solution capable of serving organizations and people anywhere.

8. In 2020, Teladoc acquired InTouch Technologies, Inc. ("InTouch"). InTouch provides innovative telehealth capabilities in complex medical environments.

9. InTouch has been recognized as a market-leading telehealth company, receiving recognition for Innovations in Healthcare Technology by the Institute of Electrical and Electronics Engineers (IEEE) Educational Activities Board in 2017, and the President's Innovation in Remote Health Care from the American Telemedicine Association in 2005. InTouch has also earned awards such as the Deloitte's Technology Fast 500 Award, Inc. Magazine's Inc. 500 Award, and most recently, Rank #1 for Virtual Care Platforms in 2020 in the KLAS Report.

10. The technology at issue in the asserted patents was developed by Dr. Yulun Wang and his colleagues, while working for InTouch.

11. Dr. Wang is recognized as an expert in the field of virtual medicine by several universities, organizations, and news outlets, including the University of California – Santa Barbara, the National Academy of Engineering, the Today Show, Good Morning America, and CNN.

12. Dr. Wang has also been lauded the “Father of Modern Surgical Robotics” by medical news publication Medgadget.

13. Dr. Wang was the principal inventor of the first FDA-approved surgical robot, AESOP (Automated Endoscopic System for Optimal Positioning), and the ZEUS Robotic Surgical System. The ZEUS Robotic Surgical System was used in the world’s first telesurgery procedure in 2001, and AESOP has been widely used in minimally invasive surgery.

14. Dr. Wang has written over 50 publications and has been an inventor on well over 100 patents.

15. The efforts of InTouch and Dr. Wang have resulted in a portfolio of over 130 patents and patent applications.

B. The Asserted Patents

16. On July 20, 2010, United States Patent No. 7,761,185 (the “’185 Patent”), entitled “Remote Presence Display Through Remotely Controlled Robot,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’185 Patent is attached as Exhibit A and incorporated herein.

17. On November 12, 2019, United States Patent No. 10,471,588 (the “’588 Patent”), entitled “Robotic Based Health Care System,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’588 Patent is attached as Exhibit B and incorporated herein.

18. On May 15, 2012, United States Patent No. 8,179,418 (the “’418 Patent”), entitled “Robotic Based Health Care System,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’418 Patent is attached as Exhibit C and incorporated herein.

19. On September 30, 2014, United States Patent No. 8,849,680 (the “’680 Patent”), entitled “Documentation Through a Remote Presence Robot,” was duly and legally issued by the United States Patent and Trademark Office. A copy of the ’680 Patent is attached as Exhibit D and incorporated herein.

20. On July 15, 2014, United States Patent No. 8,780,165 (the “’165 Patent”), entitled “Portable Remote Presence Robot,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’165 Patent is attached as Exhibit E and incorporated herein.

21. On March 21, 2017, United States Patent No. 9,602,765 (the “’765 Patent”), entitled “Portable Remote Presence Robot,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’765 Patent is attached as Exhibit F and incorporated herein.

22. On March 11, 2014, United States Patent No. 8,670,017 (the “’017 Patent”), entitled “Remote Presence System Including a Cart that Supports a Robot Face and an Overhead Camera,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’017 Patent is attached as Exhibit G and incorporated herein.

23. On November 19, 2019, United States Patent No. 10,483,007 (the “’007 Patent”), entitled “Modular Telehealth Cart with Thermal Imaging and Touch Screen User

Interface,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’007 Patent is attached as Exhibit H and incorporated herein.

24. On August 28, 2018, United States Patent No. 10,059,000 (the “’000 Patent”), entitled “Server Connectivity Control for a Tele-Presence Robot,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’000 Patent is attached as Exhibit I and incorporated herein.

25. Teladoc is the owner, by assignment, of all rights, title, and interest in and to the ’185, ’588, ’418, ’680, ’165, ’765, ’017, ’007, and ’000 Patents (collectively, the “Asserted Patents”).

C. Accused Products

26. Amwell’s products accused of infringement are the C760, C750, C250, and C210 telemedicine carts (“Amwell Carts”), the Horus HD Digital Scope System, and the Thinklabs One Digital Stethoscope (collectively, “Accused Products”).

27. According to Amwell’s web site (<https://business.amwell.com/telemedicine-equipment>), Amwell’s telemedicine carts are “designed to support in- and out-patient care, equipped to manage high- and low-acuity cases to provide timely access to remote specialists”; “bring specialists to where they are needed and allow for complete patient exams- remotely”; “enhance decision making through sharing of images and real-time audio feeds”; and “get a close-up view of the patient with a pan-tilt zoom camera and Far-End-Camera-Control.”

28. According to Amwell’s web site (<https://business.amwell.com/telemedicine-equipment/peripherals/horus-scopes/>), the Horus HD Digital Scope System “comfortably fits in one hand and allows users to naturally see what is being captured on the integrated LCD screen. When

connected to a telemedicine cart, the scope shares images and video to enable collaboration between remote teams.”

29. According to Amwell’s web site (<https://business.amwell.com/telemedicine-equipment/peripherals/thinklabs-one-digital-stethoscope/>), the Thinklabs One Digital Stethoscope is “[a]n elegant stethoscope solution offering high-quality audio of heart and lung sounds for all types of telemedicine applications.”

30. On information and belief, Amwell provides its customers with documentation containing instructions for configuring and using the Accused Products.

31. On information and belief, Amwell provides its customers with documentation containing instructions for using the Amwell Carts with third party equipment.

32. On information and belief, Amwell provides its customers a user and installation guide for the C750 Amwell Cart, such as the “Avizia CA750 User & Installation Guide,” which is attached as Exhibit J. The Avizia CA750 User & Installation Guide includes instructions for configuring and using the C750 Amwell Cart.

33. On information and belief, Amwell provides user and installation guides, substantially similar to Exhibit J, for all of its telemedicine carts, including the C760, C250, and C210 Amwell Carts.

34. Attached as Exhibit K is a brochure for the C760 Amwell Cart.

35. Attached as Exhibit L is a brochure for the C250 Amwell Cart.

36. On information and belief, Amwell provides its customers a user manual for the Horus HD Digital Scope System, such as the “Horus Scope Series 3 User Manual,” which is attached as Exhibit M. The Horus Scope Series 3 User Manual includes instructions for configuring and using the Horus HD Digital Scope System.

37. On information and belief, Amwell provides its customers a user manual for the Thinklabs One Digital Stethoscope, which is attached as Exhibit N. The Thinklabs One Digital Stethoscope user manual contains instructions for configuring and using the Thinklabs One Digital Stethoscope.

38. On information and belief, Amwell provides its customers with software for use with the Amwell Carts.

39. On information and belief, Amwell provides its customers with software for use with the Accused Products.

D. Amwell's Knowledge of the Asserted Patents and Accused Products

40. On September 14, 2020, counsel for Teladoc sent a letter to Amwell and its counsel providing notice of the Asserted Patents ("Notice Letter"). Attached as Exhibit O is a copy of the Notice Letter.

41. In the Notice Letter, Teladoc provided notice to Amwell that one or more of the Accused Products infringes the Asserted Patents and identified examples, based upon information to date, of the specific claims infringed for each of the Asserted Patents.

42. On September 15, 2020, Amwell filed an amended Form S-1 Registration Statement with the U.S. Securities and Exchange Commission to reference the Notice Letter and Teladoc's infringement allegations. Attached as Exhibit P are excerpts from Amwell's amended S-1 filing.

FIRST CLAIM FOR RELIEF
DIRECT INFRINGEMENT OF THE '185 PATENT BY AMWELL

43. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

44. The Accused Products directly infringe claims 1, 3, 4, 6, 7, 10, 11, and 13 of the '185 Patent.

45. A chart illustrating direct infringement of claims 1, 3, 4, 6, 7, 10, 11, and 13 of the '185 Patent by the Accused Products is attached as Exhibit Q.

46. On information and belief, Amwell has had knowledge and notice of the '185 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

47. Amwell has directly infringed and continues to directly infringe the '185 Patent under 35 U.S.C. § 271(a) by, among other things, making, using, selling, offering to sell, and/or importing into the United States one or more of the Accused Products that practice one or more claims of the '185 Patent.

48. Amwell's acts of direct infringement of the '185 Patent herein are being committed with full knowledge of Teladoc's rights in the '185 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted direct infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

SECOND CLAIM FOR RELIEF
INDUCED INFRINGEMENT OF THE '185 PATENT BY AMWELL

49. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

50. Amwell has induced infringement of claims 1, 3, 4, 6, 7, 10, 11, and 13 of the '185 Patent.

51. A chart illustrating induced infringement of claims 1, 3, 4, 6, 7, 10, 11, and 13 of the '185 Patent by the Accused Products is attached as Exhibit Q.

52. On information and belief, Amwell has had knowledge and notice of the '185 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

53. On information and belief, since at least the time Amwell received notice, Amwell induced and continues to induce infringement of the '185 Patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe the '185 Patent, including, but not limited to, Amwell's partners, clients, customers, and end users, whose use of one or more of the Accused Products constitutes direct infringement of at least one claim of the '185 Patent.

54. Amwell's actions that aid and abet others, such as its partners, customers, clients, and end users, to infringe include advertising and distributing the Accused Products, providing instruction materials, training, and services regarding the Accused Products, including the user guides of Exhibits J, M, and N, and/or providing software for use with one or more of the Accused Products. On information and belief, Amwell has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Amwell had actual knowledge of the '185 Patent and knowledge that its acts were inducing infringement of the '185 Patent since at least the date of the Notice Letter.

55. Amwell's acts of induced infringement of the '185 Patent herein are being committed with full knowledge of Teladoc's rights in the '185 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted induced infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

THIRD CLAIM FOR RELIEF
CONTRIBUTORY INFRINGEMENT OF THE '185 PATENT BY AMWELL

56. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

57. The Accused Products contributorily infringe claims 1, 3, 4, 6, 7, 10, 11, and 13 of the '185 Patent.

58. A chart illustrating contributory infringement of claims 1, 3, 4, 6, 7, 10, 11, and 13 of the '185 Patent by the Accused Products is attached as Exhibit Q.

59. On information and belief, Amwell has had knowledge and notice of the '185 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

60. Amwell has and continues to contributorily infringe the '185 Patent under 35 U.S.C. § 271(c). With knowledge of the '185 Patent, Amwell has sold, sells, offers to sell, has imported and/or is importing into the United States one or more of the Accused Products to be especially made or adapted for use in an infringement of the '185 Patent. The Accused Products are a material component for use in practicing the '185 Patent and are specifically made and are not a staple article of commerce suitable for substantial noninfringing use. The use of one or more of the Accused Products by Amwell's partners, clients, customers, and end users constitutes direct infringement of at least one claim of the '185 Patent.

61. Amwell's acts of contributory infringement of the '185 Patent herein are being committed with full knowledge of Teladoc's rights in the '185 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted contributory infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

FOURTH CLAIM FOR RELIEF
DIRECT INFRINGEMENT OF THE '588 PATENT BY AMWELL

62. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

63. The Accused Products directly infringe claims 1-7 of the '588 Patent.

64. A chart illustrating direct infringement of claims 1-7 of the '588 Patent by the Accused Products is attached as Exhibit R.

65. On information and belief, Amwell has had knowledge and notice of the '588 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

66. Amwell has directly infringed and continues to directly infringe the '588 Patent under 35 U.S.C. § 271(a) by, among other things, making, using, selling, offering to sell, and/or importing into the United States one or more of the Accused Products that practice one or more claims of the '588 Patent.

67. Amwell's acts of direct infringement of the '588 Patent herein are being committed with full knowledge of Teladoc's rights in the '588 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted direct infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

FIFTH CLAIM FOR RELIEF
INDUCED INFRINGEMENT OF THE '588 PATENT BY AMWELL

68. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

69. Amwell has induced infringement of claims 1-7 of the '588 Patent.

70. A chart illustrating induced infringement of claims 1-7 by the Accused Products is attached as Exhibit R.

71. On information and belief, Amwell has had knowledge and notice of the '588 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

72. On information and belief, since at least the time Amwell received notice, Amwell induced and continues to induce infringement of the '588 Patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe the '588 Patent, including, but not limited to, Amwell's partners, clients, customers, and end users, whose use of one or more of the Accused Products constitutes direct infringement of at least one claim of the '588 Patent.

73. Amwell's actions that aid and abet others, such as its partners, customers, clients, and end users, to infringe include advertising and distributing the Accused Products, providing instruction materials, training, and services regarding the Accused Products, including the user guides of Exhibits J, M, and N, and/or providing software for use with one or more of the Accused Products. On information and belief, Amwell has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Amwell had actual knowledge of the '588 Patent and knowledge that its acts were inducing infringement of the '588 Patent since at least the date of the Notice Letter.

74. Amwell's acts of induced infringement of the '588 Patent herein are being committed with full knowledge of Teladoc's rights in the '588 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted induced infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate

infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

SIXTH CLAIM FOR RELIEF
CONTRIBUTORY INFRINGEMENT OF THE '588 PATENT BY AMWELL

75. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

76. The Accused Products contributorily infringe claims 1-7 of the '588 Patent.

77. A chart illustrating contributory infringement of claims 1-7 of the '588 Patent by the Accused Products is attached as Exhibit R.

78. On information and belief, Amwell has had knowledge and notice of the '588 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

79. Amwell has and continues to contributorily infringe the '588 Patent under 35 U.S.C. § 271(c). With knowledge of the '588 Patent, Amwell has sold, sells, offers to sell, has imported and/or is importing into the United States one or more of the Accused Products to be especially made or adapted for use in an infringement of the '588 Patent. The Accused Products are a material component for use in practicing the '588 Patent and are specifically made and are not a staple article of commerce suitable for substantial noninfringing use. The use of one or more of the Accused Products by Amwell's partners, clients, customers, and end users constitutes direct infringement of at least one claim of the '588 Patent.

80. Amwell's acts of contributory infringement of the '588 Patent herein are being committed with full knowledge of Teladoc's rights in the '588 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted contributory infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and

deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

SEVENTH CLAIM FOR RELIEF
DIRECT INFRINGEMENT OF THE '418 PATENT BY AMWELL

81. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

82. The Accused Products directly infringe claims 1, 2, 4, 5, 8, 9-12, and 15-17 of the '418 Patent.

83. A chart illustrating direct infringement of claims 1, 2, 4, 5, 8, 9-12, and 15-17 by the Accused Products is attached as Exhibit S.

84. On information and belief, Amwell has had knowledge and notice of the '418 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

85. Amwell has directly infringed and continues to directly infringe the '418 Patent under 35 U.S.C. § 271(a) by, among other things, making, using, selling, offering to sell, and/or importing into the United States the Accused Products that practice one or more claims of the '418 Patent.

86. Amwell's acts of direct infringement of the '418 Patent herein are being committed with full knowledge of Teladoc's rights in the '418 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted direct infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

EIGHTH CLAIM FOR RELIEF
INDUCED INFRINGEMENT OF THE '418 PATENT BY AMWELL

87. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

88. Amwell has induced infringement of claims 1, 2, 4, 5, 8, 9-12, and 15-17 of the '418 Patent.

89. A chart illustrating induced infringement of claims 1, 2, 4, 5, 8, 9-12, and 15-17 by the Accused Products is attached as Exhibit S.

90. On information and belief, Amwell has had knowledge and notice of the '418 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

91. On information and belief, since at least the time Amwell received notice, Amwell induced and continues to induce infringement of the '418 Patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe the '418 Patent, including, but not limited to, Amwell's partners, clients, customers, and end users, whose use of one or more of the Accused Products constitutes direct infringement of at least one claim of the '418 Patent.

92. Amwell's actions that aid and abet others, such as its partners, customers, clients, and end users, to infringe include advertising and distributing the Accused Products, providing instruction materials, training, and services regarding the Accused Products, including the user guides of Exhibits J, M, and N, and/or providing software for use with one or more of the Accused Products. On information and belief, Amwell has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Amwell had actual knowledge of the '418 Patent and knowledge that its acts were inducing infringement of the '418 Patent since at least the date of the Notice Letter.

93. Amwell's acts of induced infringement of the '418 Patent herein are being committed with full knowledge of Teladoc's rights in the '418 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted induced infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

NINTH CLAIM FOR RELIEF
CONTRIBUTORY INFRINGEMENT OF THE '418 PATENT BY AMWELL

94. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

95. The Accused Products contributorily infringe claims 1, 2, 4, 5, 8, 9-12, and 15-17 of the '418 Patent.

96. A chart illustrating contributory infringement of claims 1, 2, 4, 5, 8, 9-12, and 15-17 by the Accused Products is attached as Exhibit S.

97. On information and belief, Amwell has had knowledge and notice of the '418 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

98. Amwell has and continues to contributorily infringe the '418 Patent under 35 U.S.C. § 271(c). With knowledge of the '418 Patent, Amwell has sold, sells, offers to sell, has imported and/or is importing into the United States one or more of the Accused Products to be especially made or adapted for use in an infringement of the '418 Patent. The Accused Products are a material component for use in practicing the '418 Patent and are specifically made and are not a staple article of commerce suitable for substantial noninfringing use. The use of one or more of the Accused Products by Amwell's partners, clients, customers, and end users constitutes direct infringement of at least one claim of the '418 Patent.

99. Amwell's acts of contributory infringement of the '418 Patent herein are being committed with full knowledge of Teladoc's rights in the '418 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted contributory infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

TENTH CLAIM FOR RELIEF
DIRECT INFRINGEMENT OF THE '680 PATENT BY AMWELL

100. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

101. The Accused Products directly infringe claims 1, 2, 4, 5, 12-14, and 21-23 of the '680 Patent.

102. A chart illustrating direct infringement of claims 1, 2, 4, 5, 12-14, and 21-23 by the Accused Products is attached as Exhibit T.

103. On information and belief, Amwell has had knowledge and notice of the '680 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

104. Amwell has directly infringed and continues to directly infringe the '680 Patent under 35 U.S.C. § 271(a) by, among other things, making, using, selling, offering to sell, and/or importing into the United States the Accused Products that practice one or more claims of the '680 Patent.

105. Amwell's acts of direct infringement of the '680 Patent herein are being committed with full knowledge of Teladoc's rights in the '680 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted direct infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate

infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

ELEVENTH CLAIM FOR RELIEF
INDUCED INFRINGEMENT OF THE '680 PATENT BY AMWELL

106. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

107. Amwell has and continues to induce infringement of claims 1, 2, 4, 5, 12-14, and 21-23 of the '680 Patent.

108. A chart illustrating induced infringement of claims 1, 2, 4, 5, 12-14, and 21-23 by the Accused Products is attached as Exhibit T.

109. On information and belief, Amwell has had knowledge and notice of the '680 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

110. On information and belief, since at least the time Amwell received notice, Amwell induced and continues to induce infringement of the '680 Patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe the '680 Patent, including, but not limited to, Amwell's partners, clients, customers, and end users, whose use of one or more of the Accused Products constitutes direct infringement of at least one claim of the '680 Patent.

111. Amwell's actions that aid and abet others, such as its partners, customers, clients, and end users, to infringe include advertising and distributing the Accused Products, providing instruction materials, training, and services regarding the Accused Products, including the user guides of Exhibits J, M, and N, and/or providing software for use with one or more of the Accused Products. On information and belief, Amwell has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Amwell had actual

knowledge of the '680 Patent and knowledge that its acts were inducing infringement of the '680 Patent since at least the date of the Notice Letter.

112. Amwell's acts of induced infringement of the '680 Patent herein are being committed with full knowledge of Teladoc's rights in the '680 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted induced infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

TWELFTH CLAIM FOR RELIEF
CONTRIBUTORY INFRINGEMENT OF THE '680 PATENT BY AMWELL

113. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

114. The Accused Products contributorily infringe claims 1, 2, 4, 5, 12-14, and 21-23 of the '680 Patent.

115. A chart illustrating contributory infringement of claims 1, 2, 4, 5, 12-14, and 21-23 by the Accused Products is attached as Exhibit T.

116. On information and belief, Amwell has had knowledge and notice of the '680 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

117. Amwell has and continues to contributorily infringe the '680 Patent under 35 U.S.C. § 271(c). With knowledge of the '680 Patent, Amwell has sold, sells, offers to sell, has imported and/or is importing into the United States one or more of the Accused Products to be especially made or adapted for use in an infringement of the '680 Patent. The Accused Products are a material component for use in practicing the '680 Patent and are specifically made and are not a staple article of commerce suitable for substantial noninfringing use. The use of one or more of the

Accused Products by Amwell's partners, clients, customers, and end users constitutes direct infringement of at least one claim of the '680 Patent.

118. Amwell's acts of contributory infringement of the '680 Patent herein are being committed with full knowledge of Teladoc's rights in the '680 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted contributory infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

THIRTEENTH CLAIM FOR RELIEF
DIRECT INFRINGEMENT OF THE '165 PATENT BY AMWELL

119. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

120. The Accused Products directly infringe claims 1-4 of the '165 Patent.

121. A chart illustrating direct infringement of claims 1-4 by the Accused Products is attached as Exhibit U.

122. On information and belief, Amwell has had knowledge and notice of the '165 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

123. Amwell has directly infringed and continues to directly infringe the '165 Patent under 35 U.S.C. § 271(a) by, among other things, using in the United States methods that practice one or more claims of the '165 Patent.

124. Amwell's acts of direct infringement of the '165 Patent herein are being committed with full knowledge of Teladoc's rights in the '165 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted direct infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate

infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

FOURTEENTH CLAIM FOR RELIEF
INDUCED INFRINGEMENT OF THE '165 PATENT BY AMWELL

125. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

126. Amwell induces infringement of claims 1-4 of the '165 Patent.

127. A chart illustrating induced infringement of claims 1-4 by the Accused Products is attached as Exhibit U.

128. On information and belief, Amwell has had knowledge and notice of the '165 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

129. On information and belief, since at least the time Amwell received notice, Amwell induced and continues to induce infringement of the '165 Patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe the '165 Patent, including, but not limited to, Amwell's partners, clients, customers, and end users, whose use of one or more of the Accused Products constitutes direct infringement of at least one claim of the '165 Patent.

130. Amwell's actions that aid and abet others, such as its partners, customers, clients, and end users, to infringe include advertising and distributing the Accused Products, providing instruction materials, training, and services regarding the Accused Products, including the user guides of Exhibits J, M, and N, and/or providing software for use with one or more of the Accused Products. On information and belief, Amwell has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Amwell had actual

knowledge of the '165 Patent and knowledge that its acts were inducing infringement of the '165 Patent since at least the date of the Notice Letter.

131. Amwell's acts of induced infringement of the '165 Patent herein are being committed with full knowledge of Teladoc's rights in the '165 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted induced infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

FIFTEENTH CLAIM FOR RELIEF
CONTRIBUTORY INFRINGEMENT OF THE '165 PATENT BY AMWELL

132. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

133. The Accused Products contributorily infringe 1-4 of the '165 Patent.

134. A chart illustrating contributory infringement of claims 1-4 by the Accused Products is attached as Exhibit U.

135. On information and belief, Amwell has had knowledge and notice of the '165 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

136. Amwell has and continues to contributorily infringe the '165 Patent under 35 U.S.C. § 271(c). With knowledge of the '165 Patent, Amwell has sold, sells, offers to sell, has imported and/or is importing into the United States one or more of the Accused Products to be especially made or adapted for use in an infringement of the '165 Patent. The Accused Products are a material component for use in practicing the '165 Patent and are specifically made and are not a staple article of commerce suitable for substantial noninfringing use. The use of one or more of the

Accused Products by Amwell's partners, clients, customers, and end users constitutes direct infringement of at least one claim of the '165 Patent.

137. Amwell's acts of contributory infringement of the '165 Patent herein are being committed with full knowledge of Teladoc's rights in the '165 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted contributory infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

SIXTEENTH CLAIM FOR RELIEF
DIRECT INFRINGEMENT OF THE '765 PATENT BY AMWELL

138. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

139. The Accused Products directly infringe claims 1-4 of the '765 Patent.

140. A chart illustrating direct infringement of claims 1-4 by the Accused Products is attached as Exhibit V.

141. On information and belief, Amwell has had knowledge and notice of the '765 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

142. Amwell has directly infringed and continues to directly infringe the '765 Patent under 35 U.S.C. § 271(a) by, among other things, making, using, selling, offering to sell, and/or importing into the United States the Accused Products that practice one or more claims of the '765 Patent.

143. Amwell's acts of direct infringement of the '765 Patent herein are being committed with full knowledge of Teladoc's rights in the '765 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted direct infringement of a valid

patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

SEVENTEENTH CLAIM FOR RELIEF
INDUCED INFRINGEMENT OF THE '765 PATENT BY AMWELL

144. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

145. Amwell induced and induces infringement of claims 1-4 of the '765 Patent.

146. A chart illustrating induced infringement of claims 1-4 by the Accused Products is attached as Exhibit V.

147. On information and belief, Amwell has had knowledge and notice of the '765 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

148. On information and belief, since at least the time Amwell received notice, Amwell induced and continues to induce infringement of the '765 Patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe the '765 Patent, including, but not limited to, Amwell's partners, clients, customers, and end users, whose use of one or more of the Accused Products constitutes direct infringement of at least one claim of the '765 Patent.

149. Amwell's actions that aid and abet others, such as its partners, customers, clients, and end users, to infringe include advertising and distributing the Accused Products, providing instruction materials, training, and services regarding the Accused Products, including the user guides of Exhibits J, M, and N, and/or providing software for use with one or more of the Accused Products. On information and belief, Amwell has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Amwell had actual

knowledge of the '765 Patent and knowledge that its acts were inducing infringement of the '765 Patent since at least the date of the Notice Letter.

150. Amwell's acts of induced infringement of the '765 Patent herein are being committed with full knowledge of Teladoc's rights in the '765 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted induced infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

EIGHTEENTH CLAIM FOR RELIEF
CONTRIBUTORY INFRINGEMENT OF THE '765 PATENT BY AMWELL

151. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

152. The Accused Products contributorily infringe claims 1-4 of the '765 Patent.

153. A chart illustrating contributory infringement of claims 1-4 by the Accused Products is attached as Exhibit V.

154. On information and belief, Amwell has had knowledge and notice of the '765 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

155. Amwell has and continues to contributorily infringe the '765 Patent under 35 U.S.C. § 271(c). With knowledge of the '765 Patent, Amwell has sold, sells, offers to sell, has imported and/or is importing into the United States one or more of the Accused Products to be especially made or adapted for use in an infringement of the '765 Patent. The Accused Products are a material component for use in practicing the '765 Patent and are specifically made and are not a staple article of commerce suitable for substantial noninfringing use. The use of one or more of the

Accused Products by Amwell's partners, clients, customers, and end users constitutes direct infringement of at least one claim of the '765 Patent.

156. Amwell's acts of contributory infringement of the '765 Patent herein are being committed with full knowledge of Teladoc's rights in the '765 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted contributory infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

NINETEENTH CLAIM FOR RELIEF
DIRECT INFRINGEMENT OF THE '017 PATENT BY AMWELL

157. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

158. The Accused Products directly infringe claims 1, 2, 10, 16, 25, 26, and 29 of the '017 Patent.

159. A chart illustrating direct infringement of claims 1, 2, 10, 16, 25, 26, and 29 by the Accused Products is attached as Exhibit W.

160. On information and belief, Amwell has had knowledge and notice of the '017 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

161. Amwell has directly infringed and continues to directly infringe the '017 Patent under 35 U.S.C. § 271(a) by, among other things, making, using, selling, offering to sell, and/or importing into the United States the Accused Products that practice one or more claims of the '017 Patent.

162. Amwell's acts of direct infringement of the '017 Patent herein are being committed with full knowledge of Teladoc's rights in the '017 Patent. On information and belief,

Amwell is continuing to act despite knowing that its actions constituted direct infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

TWENTIETH CLAIM FOR RELIEF
INDUCED INFRINGEMENT OF THE '017 PATENT BY AMWELL

163. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

164. Amwell has and continues to induce infringement of claims 1, 2, 10, 16, 25, 26, and 29 of the '017 Patent.

165. A chart illustrating induced infringement of claims 1, 2, 10, 16, 25, 26, and 29 by the Accused Products is attached as Exhibit W.

166. On information and belief, Amwell has had knowledge and notice of the '017 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

167. On information and belief, since at least the time Amwell received notice, Amwell induced and continues to induce infringement of the '017 Patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe the '017 Patent, including, but not limited to, Amwell's partners, clients, customers, and end users, whose use of one or more of the Accused Products constitutes direct infringement of at least one claim of the '017 Patent.

168. Amwell's actions that aid and abet others, such as its partners, customers, clients, and end users, to infringe include advertising and distributing the Accused Products, providing instruction materials, training, and services regarding the Accused Products, including the user guides of Exhibits J, M, and N, and/or providing software for use with one or more of the Accused Products.

On information and belief, Amwell has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Amwell had actual knowledge of the '017 Patent and knowledge that its acts were inducing infringement of the '017 Patent since at least the date of the Notice Letter.

169. Amwell's acts of induced infringement of the '017 Patent herein are being committed with full knowledge of Teladoc's rights in the '017 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted induced infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

TWENTY-FIRST CLAIM FOR RELIEF
CONTRIBUTORY INFRINGEMENT OF THE '017 PATENT BY AMWELL

170. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

171. The Accused Products contributorily infringe claims 1, 2, 10, 16, 25, 26, and 29 of the '017 Patent.

172. A chart illustrating contributory infringement of claims 1, 2, 10, 16, 25, 26, and 29 by the Accused Products is attached as Exhibit W.

173. On information and belief, Amwell has had knowledge and notice of the '017 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

174. Amwell has and continues to contributorily infringe the '017 Patent under 35 U.S.C. § 271(c). With knowledge of the '017 Patent, Amwell has sold, sells, offers to sell, has imported and/or is importing into the United States one or more of the Accused Products to be especially made or adapted for use in an infringement of the '017 Patent. The Accused Products are

a material component for use in practicing the '017 Patent and are specifically made and are not a staple article of commerce suitable for substantial noninfringing use. The use of one or more of the Accused Products by Amwell's partners, clients, customers, and end users constitutes direct infringement of at least one claim of the '017 Patent.

175. Amwell's acts of contributory infringement of the '017 Patent herein are being committed with full knowledge of Teladoc's rights in the '017 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted contributory infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

TWENTY-SECOND CLAIM FOR RELIEF
DIRECT INFRINGEMENT OF THE '007 PATENT BY AMWELL

176. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

177. The Accused Products directly infringe claims 1, 13-16, and 20 of the '007 Patent.

178. A chart illustrating direct infringement of claims 1, 13-16, and 20 by the Accused Products is attached as Exhibit X.

179. On information and belief, Amwell has had knowledge and notice of the '007 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

180. Amwell has directly infringed and continues to directly infringe the '007 Patent under 35 U.S.C. § 271(a) by, among other things, making, using, selling, offering to sell, and/or importing into the United States the Accused Products that practice one or more claims of the '007 Patent.

181. Amwell's acts of direct infringement of the '007 Patent herein are being committed with full knowledge of Teladoc's rights in the '007 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted direct infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

TWENTY-THIRD CLAIM FOR RELIEF
INDUCED INFRINGEMENT OF THE '007 PATENT BY AMWELL

182. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

183. Amwell has and continues to induce infringement of claims 1, 13-16, and 20 of the '007 Patent.

184. A chart illustrating induced infringement of claims 1, 13-16, and 20 by the Accused Products is attached as Exhibit X.

185. On information and belief, Amwell has had knowledge and notice of the '007 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

186. On information and belief, since at least the time Amwell received notice, Amwell induced and continues to induce infringement of the '007 Patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe the '007 Patent, including, but not limited to, Amwell's partners, clients, customers, and end users, whose use of one or more of the Accused Products constitutes direct infringement of at least one claim of the '007 Patent.

187. Amwell's actions that aid and abet others, such as its partners, customers, clients, and end users, to infringe include advertising and distributing the Accused Products, providing

instruction materials, training, and services regarding the Accused Products, including the user guides of Exhibits J, M, and N, and/or providing software for use with one or more of the Accused Products. On information and belief, Amwell has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Amwell had actual knowledge of the '007 Patent and knowledge that its acts were inducing infringement of the '007 Patent since at least the date of the Notice Letter.

188. Amwell's acts of induced infringement of the '007 Patent herein are being committed with full knowledge of Teladoc's rights in the '007 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted induced infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

TWENTY-FOURTH CLAIM FOR RELIEF
CONTRIBUTORY INFRINGEMENT OF THE '007 PATENT BY AMWELL

189. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

190. The Accused Products contributorily infringe claims 1, 13-16, and 20 of the '007 Patent.

191. A chart illustrating contributory infringement of claims 1, 13-16, and 20 by the Accused Products is attached as Exhibit X.

192. On information and belief, Amwell has had knowledge and notice of the '007 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

193. Amwell has and continues to contributorily infringe the '007 Patent under 35 U.S.C. § 271(c). With knowledge of the '007 Patent, Amwell has sold, sells, offers to sell, has

imported and/or is importing into the United States one or more of the Accused Products to be especially made or adapted for use in an infringement of the '007 Patent. The Accused Products are a material component for use in practicing the '007 Patent and are specifically made and are not a staple article of commerce suitable for substantial noninfringing use. The use of one or more of the Accused Products by Amwell's partners, clients, customers, and end users constitutes direct infringement of at least one claim of the '007 Patent.

194. Amwell's acts of contributory infringement of the '007 Patent herein are being committed with full knowledge of Teladoc's rights in the '007 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted contributory infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

TWENTY-FIFTH CLAIM FOR RELIEF
DIRECT INFRINGEMENT OF THE '000 PATENT BY AMWELL

195. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

196. The Accused Products directly infringe claims 1-6, 9, and 15-19 of the '000 Patent.

197. A chart illustrating direct infringement of claims 1-6, 9, and 15-19 by the Accused Products is attached as Exhibit Y.

198. On information and belief, Amwell has had knowledge and notice of the '000 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

199. Amwell has directly infringed and continues to directly infringe the '000 Patent under 35 U.S.C. § 271(a) by, among other things, making, using, selling, offering to sell, and/or

importing into the United States the Accused Products that practice one or more claims of the '000 Patent.

200. Amwell's acts of direct infringement of the '000 Patent herein are being committed with full knowledge of Teladoc's rights in the '000 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted direct infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

TWENTY-SIXTH CLAIM FOR RELIEF
INDUCED INFRINGEMENT OF THE '000 PATENT BY AMWELL

201. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

202. Amwell has and continues to induce infringement of claims 1-6, 9, and 15-19 of the '000 Patent.

203. A chart illustrating induced infringement of claims 1-6, 9, and 15-19 by the Accused Products is attached as Exhibit Y.

204. On information and belief, Amwell has had knowledge and notice of the '000 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

205. On information and belief, since at least the time Amwell received notice, Amwell induced and continues to induce infringement of the '000 Patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe the '000 Patent, including, but not limited to, Amwell's partners, clients, customers, and end users, whose use of one or more of the Accused Products constitutes direct infringement of at least one claim of the '000 Patent.

206. Amwell's actions that aid and abet others, such as its partners, customers, clients, and end users, to infringe include advertising and distributing the Accused Products, providing instruction materials, training, and services regarding the Accused Products, including the user guides of Exhibits J, M, and N, and/or providing software for use with one or more of the Accused Products. On information and belief, Amwell has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Amwell had actual knowledge of the '000 Patent and knowledge that its acts were inducing infringement of the '000 Patent since at least the date of the Notice Letter.

207. Amwell's acts of induced infringement of the '000 Patent herein are being committed with full knowledge of Teladoc's rights in the '000 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted induced infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

TWENTY-SEVENTH CLAIM FOR RELIEF
CONTRIBUTORY INFRINGEMENT OF THE '000 PATENT BY AMWELL

208. Teladoc incorporates by reference each and every allegation contained in Paragraphs 1-42 above.

209. The Accused Products contributorily infringe claims 1-6, 9, and 15-19 of the '000 Patent.

210. A chart illustrating contributory infringement of claims 1-6, 9, and 15-19 by the Accused Products is attached as Exhibit Y.

211. On information and belief, Amwell has had knowledge and notice of the '000 Patent, as well as its infringement thereof, at least as early as the date of the Notice Letter.

212. Amwell has and continues to contributorily infringe the '000 Patent under 35 U.S.C. § 271(c). With knowledge of the '000 Patent, Amwell has sold, sells, offers to sell, has imported and/or is importing into the United States one or more of the Accused Products to be especially made or adapted for use in an infringement of the '000 Patent. The Accused Products are a material component for use in practicing the '000 Patent and are specifically made and are not a staple article of commerce suitable for substantial noninfringing use. The use of one or more of the Accused Products by Amwell's partners, clients, customers, and end users constitutes direct infringement of at least one claim of the '000 Patent.

213. Amwell's acts of contributory infringement of the '000 Patent herein are being committed with full knowledge of Teladoc's rights in the '000 Patent. On information and belief, Amwell is continuing to act despite knowing that its actions constituted contributory infringement of a valid patent since at least the date of the Notice Letter. Amwell's acts constitute willful and deliberate infringement, entitling Teladoc to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

DAMAGES AND INJUNCTIVE RELIEF

214. As a result of Amwell's infringement of the Asserted Patents, Teladoc has suffered and will continue to suffer damages. Under 35 U.S.C. § 284, Teladoc is entitled to recover from Amwell the damages adequate to compensate for such infringement in an amount to be determined at trial.

215. Amwell's acts of infringement have caused and will continue to cause irreparable harm to Teladoc, for which there is no adequate remedy at law, entitling Teladoc to injunctive relief.

JURY DEMAND

216. Teladoc demands a trial by jury on all issues.

PRAYER FOR RELIEF

WHEREFORE, Teladoc prays for the following relief:

- a. A judgment holding that Amwell has infringed the Asserted Patents.
- b. That Amwell and its affiliates, employees, agents, officers, directors, attorneys, successors, and assigns and all those acting on behalf of or in concert with Amwell be permanently enjoined from infringement, inducement of infringement, and contributory infringement of each of the Asserted Patents;
- c. That Teladoc be awarded damages for Amwell's infringement of the Asserted Patents, together with interest (both pre- and post-judgment interest), costs, and disbursements as determined by this Court under 35 U.S.C. § 284, including enhanced damages up to three times the amount of damages found or measured, but in any event no less than a reasonable royalty;
- d. That this action be adjudged an exceptional case and Teladoc be awarded its attorneys' fees in this action pursuant to 35 U.S.C. § 285;
- e. That Teladoc is entitled to reasonable costs, including attorneys' fees and expenses; and
- f. That Teladoc be awarded such other equitable or legal relief as this Court deems just and proper under the circumstances.

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