

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION AND AFFIRMED NETWORKS, INC.,
Petitioners,

v.

LEMKO CORPORATION,
Patent Owner.

Case No. IPR2023-00570
U.S. Patent No. 9,191,980

DECLARATION OF JAMES PROCTOR
IN SUPPORT OF PETITION FOR *INTER PARTES*
REVIEW OF U.S. PATENT NO. 9,191,980

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TABLE OF EXHIBITS

Ex. No.	Brief Description
1001	U.S. Patent No. 9,191,980
1002	File History of U.S. Patent No. 9,191,980
1003	RESERVED
1004	<i>Curriculum Vitae</i> of Mr. James Proctor
1005	U.S. Patent No. 8,184,603 to Waylett et al. (“Waylett”)
1006	U.S. Patent No. 7,969,931 to Bachmann et al. (“Bachmann”)
1007	RESERVED
1008	RESERVED
1009	“Digital cellular telecommunications system (Phase 2+); Voice Broadcast Service (VBS) - Stage 1,” 3GPP TS 43.069 version 4.1.0 Release 4, January 2001
1010	“Packet-switched conversational multimedia applications; Performance characterisation of default codecs,” 3GPP TR 26.935 V7.2.0, December 2007
1011	interWAVE to provide wireless GSM network on cruise ship,” Wireless Networks Online, December 2000

I. Introduction And Qualifications

1. My name is James A. Proctor, Jr. At the request of Microsoft, I have been asked to analyze and offer my opinion regarding the validity of Claim 1 (the “Challenged Claim”) of U.S. Patent No. 9,191,980 (“the ’980 patent”).

2. For purposes of this declaration, I will provide my detailed analysis and opinions regarding validity below.

3. Prior to that, I summarize some of my relevant educational background, work experience, and other relevant qualifications. A more detailed recitation of my professional qualifications and background is reflected in my Curriculum Vitae (“CV”), attached hereto as Exhibit 1004.

4. I have worked as an engineer and entrepreneur in the field of wireless communications for over 25 years and have been involved with various aspects of wireless communications for the duration of my career.

5. I matriculated from the University of Florida with my Bachelor of Science in Electrical Engineering in 1991 and from Georgia Institute of Technology with my Master of Science in Electrical Engineering in 1992. My Master’s studies focused on digital signal processing.

6. From 1986 to 1991, while at the University of Florida, I interned with Harris Corporation in various roles including mechanical design, software development, and digital design. From 1991 to 1992, while at Georgia Institute of

Technology, I worked at the Georgia Tech Research Institute as a graduate research assistant, performing software development on classified government programs.

7. From 1993 to 1995, while working for Harris Corporation, I designed various cellular communications systems for voice, data, and tracking/location. Many of these systems used advanced communications technologies, such as those codified in the then-developing and future telecommunication standards, such as Interim Standard 95 (“IS-95”), wideband code-division multiple access (“W-CDMA”), and aspects of the 3rd Generation Partnership Project’s (“3GPP’s”) long-term evolution (“LTE”).

8. From 1995 to 1998, I worked at Spectrian Corporation (“Spectrian”) in advanced development and technical marketing. At Spectrian, I interfaced with Nortel Networks Corporation and Qualcomm Technologies, Inc. (“Qualcomm”) and performed advanced technology development and systems analysis. In this role, I designed IS-95 CDMA and Global System for Mobile communication (“GSM”) base station power amplifiers and control electronics, and received several patents associated with advanced linearization techniques for the reduction of transmitted intermodulation distortion within multicarrier and single carrier amplifiers and transceivers. My work and patents encompassed both analog (radio frequency (“RF”)) and digital linearization approaches.

9. From 1998 to 2002, I served as the Director of Strategic and Technical Marketing at Tantivy Communications (“Tantivy”), a venture capital-funded 3G cellular data and chipset company. At Tantivy, I helped to architect and standardize the Internet-CDMA (“I-CDMA”) Spread Spectrum Systems Air Interface Standard (T1P1.4). I also developed both wireless access terminals and base stations that complied with the standard. The base stations utilized various Internet Protocol (“IP”) protocols and interfaced with the wireline network utilizing IP over Ethernet. Additionally, I participated in and provided technical contributions to 3GPP/3GPP2 standardization efforts related to the development of CDMA2000 and 1xEV-DO technical specifications. This work resulted in me contributing as a named inventor to more than 150 pending or issued U.S. patents and applications.

10. From 2002 to 2007, as co-founder of WiDeFi, Inc. (“WiDeFi”), I served in various roles including President, CEO, CTO, and board member. As the CEO, my responsibilities included advanced development of platform technologies. I was a named inventor of wireless technology components, including a frequency translating time division duplex (“TDD”) repeater, frequency repeater architecture for frequency division duplex (“FDD”) and TDD based systems, and physical layer multi-stream multiple-input and multiple-output (“MIMO”) repeater technology. WiDeFi invented and provided wireless home

networking products based on Wi-Fi and cellular technologies. While at WiDeFi, I was a named inventor on over 25 issued U.S. patents or patent applications.

11. From 2007 to 2009, I consulted as a principal engineer for Qualcomm as part of Qualcomm's acquisition of WiDeFi's technology. While at Qualcomm, I worked with its corporate Research and Development division and developed consumer 3G and 4G cellular coverage enhancement systems utilizing WiDeFi's baseband interference cancellation technologies. My responsibilities included working with international cellular operators on product requirements, detailed W-CDMA simulations, LTE systems analysis, and participation in prototype product realization. I am currently a named inventor on roughly 45 issued United States patents or patent applications assigned to Qualcomm.

12. From 2010 to the present, I have served as managing director and co-founder of Proxicom Wireless, LLC ("Proxicom"), which has developed and continues to develop cloud-based, mobile social networking and mobile payments technology based upon the proximity and location of mobile devices. Proxicom currently holds fifteen issued U.S. patents and multiple pending patent applications, and I am a named inventor on each of those patents and patent applications. The significant aspects of Proxicom's technology include a mobile device's use of short-range wireless technologies (*e.g.*, 802.11, near field communications, and Bluetooth®) in combination with cellular data links

(3G/WCDMA or 4G/LTE, for example) to facilitate frictionless interactions via a wireless networked central cloud server.

13. I have also served as the principal of Proctor Consulting, LLC since 2007. In this role, I have been a consultant on issues relating to wired, wireless, and cellular communications and technologies, start-up companies, and intellectual property. I have also been involved with numerous patent infringement, patent validity, and patent analysis assignments for public and private companies in the wired, wireless, and cellular networking industries.

14. Additionally, I have worked and consulted for both cellular infrastructure and device focused companies (*e.g.*, Spectrian, Qualcomm, Fastback Networks), and defense contractors (*e.g.*, Harris Corporation), where I developed covert-tracking and location technologies involving CDMA and smart-antenna technologies.

15. In several of the above-detailed roles, I have been responsible for the development of business plans, product development plans, product development budgets, and product bill of materials estimations. I have been responsible for numerous product development teams, including schedules and costs for the development process at various stages of my career. For example, at Tantivy, I ran a joint development of I-CDMA cellular base stations in Seoul, South Korea that were used in a field trial in that country. Additionally, as co-founder and CEO of

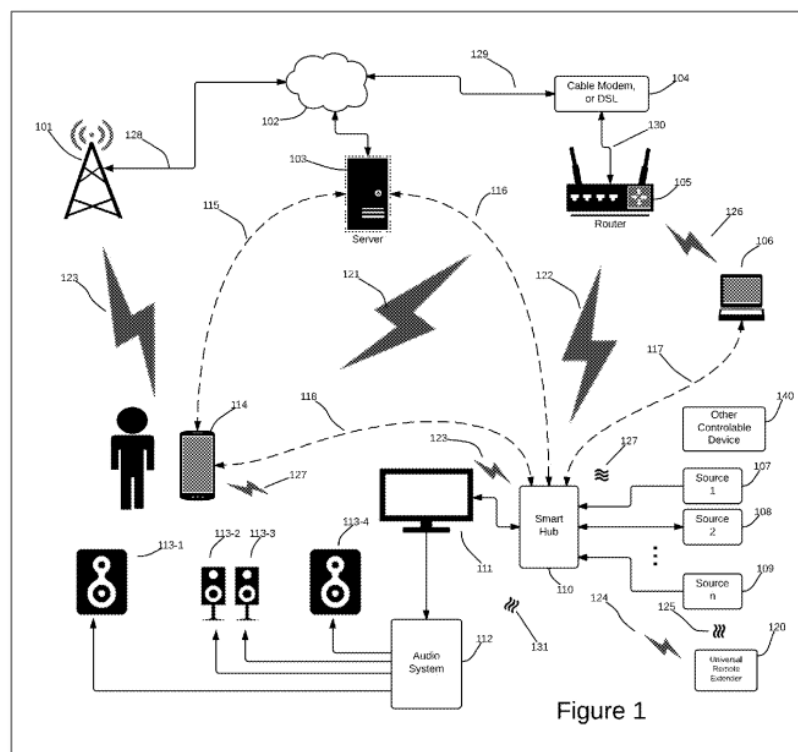
WiDeFi, I was responsible for similar such activities, as well as raising venture capital funding and reporting to the board of directors.

16. I am currently a named inventor on more than 320 issued U.S. patents and more than 700 international patent publications. A substantial portion of my work has been focused on wireless communication systems and products. A number of these patents and patent applications are related to the subject matter of the patents asserted in this matter, specifically methods for initiating calls in a wireless telecommunications system. The following patents, for which I am a named inventor, provide a few examples of some of my experience relevant to the subject matter of this declaration:

U.S. Pat. No.	Title	Priority Date
6,542,481	Dynamic Bandwidth Allocation for Multiple Access Communication Using Session Queues	1998-06-01
8,908,654	Dynamic Bandwidth Allocation for Multiple Access Communications Using Buffer Urgency Factor	1998-06-01
9,306,658	Method and Apparatus for a Spectrally Compliant Cellular Communication System	1999-12-20
8,321,542	Wireless Channel Allocation in a Base Station Processor	2000-05-05
6,937,562	Application Specific Traffic Optimization in a Wireless Link	2001-02-05
6,941,152	Wireless Subscriber Network Registration System for Configurable Services	2001-04-24
6,888,807	Applying Session Services Based on Packet Flows	2002-06-10
9,554,061	Smart Hub	2006-12-15

8,370,955	Enforcing Policies in Wireless Communication Using Exchanged Identities	2008-09-08
9,020,621	Network Based Media Enhancement Function Based on an Identifier	2009-11-18

17. For instance, I am a named inventor of U.S. Patent No. 9,554,061 (“the ’061 patent”) entitled “Smart Hub.” There, I developed an intelligent hub for interfacing with other devices and performing smart audio or video source selection. The United States Patent and Trademark Office (“USPTO”) awarded me a patent on my claimed invention on January 24, 2017. Figure 1 from this patent is pictured below:

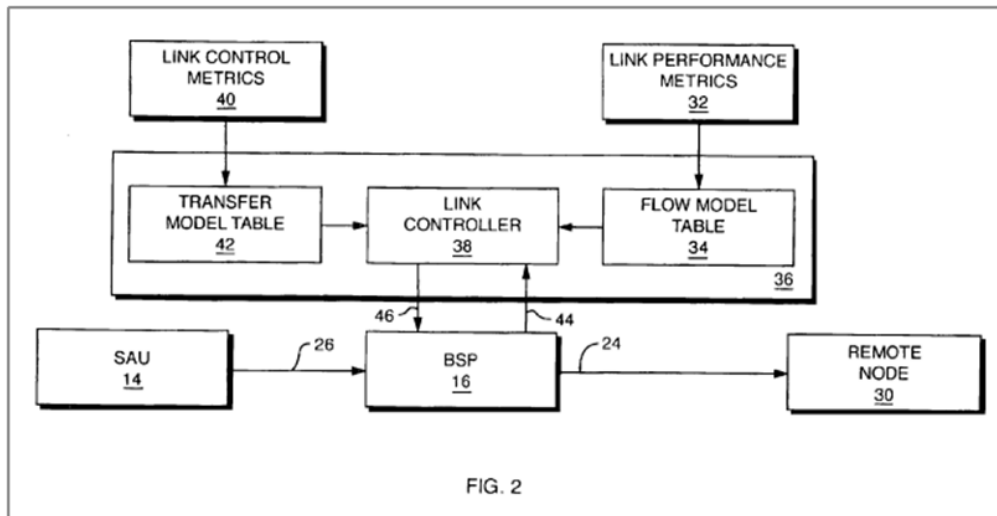


U.S. Patent 9,554,061 (“Smart Hub”) at Figure 1.

18. The claimed invention uses wired and/or wireless physical communication links, such as wired Institute of Electrical and Electronic Engineers

(“IEEE”) 803.2 Local Area Network (“LAN”) connections, IEEE 802.11 Wi-Fi connections, Bluetooth® connections, Wi-Fi Direct®, intermediary network nodes, cellular mobile communications via a base station, wireless and wired routers, Near Field Communications (“NFC”), Ultra-wideband (“UWB”), and the like. The ’061 patent further discloses Voice over Internet Protocol (“VoIP”) and Session Initiation Protocol (“SIP”) processing, including a user agent in an approach compatible with the 3GPP cellular standards, including IP Multimedia Subsystem (“IMS”) services.

19. By way of further example, I am a named inventor of U.S. Patent No. 6,937,562 (“the ’562 patent”) entitled “Application Specific Traffic Optimization in a Wireless Link.” This patent is directed to a data packet system for use in a network, such as a Transmission Control Protocol (“TCP”)/IP network, for transmitting a variety of data types along links in the network. The packets are transmitted in a stream between nodes and interconnected by the links, which conform to transport layer protocols and include wireless links. I filed the patent application that issued as the ’562 patent on February 5, 2001, and the USPTO issued the patent on August 30, 2005. The ’562 patent is one of many examples demonstrating that I was at least a person of ordinary skill in the art (“POSA”) well before the earliest possible priority date of the asserted patents. Figure 2 from the ’562 patent is pictured below:

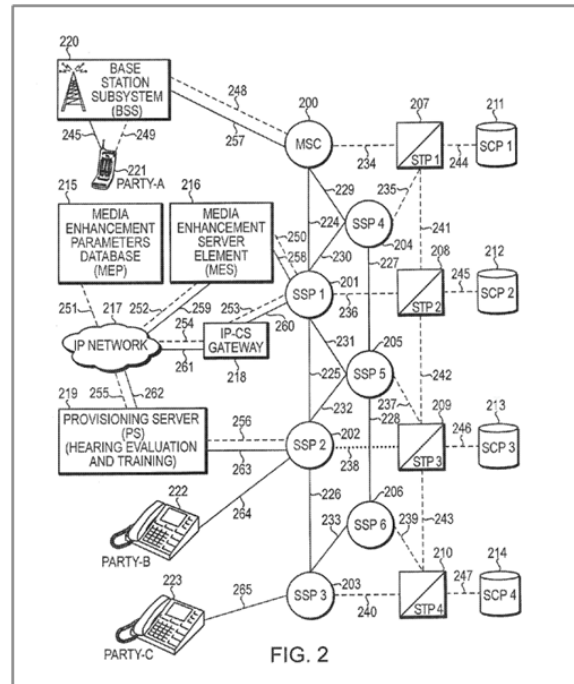


U.S. Patent 6,937,562 (“Application Specific Traffic Optimization in a Wireless Link”) at Figure 2.

20. I included Figure 2 here because it depicts a block diagram of my claimed invention as shown in a telecommunication system, the conventional components of which were well known to me and any other POSA long before the earliest claimed priority date. For example, here, base station processor (“BSP”) 16 maintains a database table of link performance metrics 32 and link control metrics 40 and communicates directly with link controller 38.

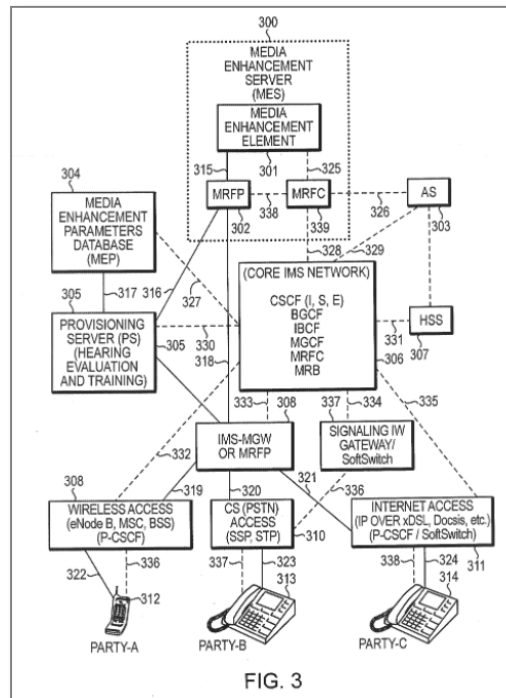
21. And finally, for purposes of my discussion here, I am a named inventor of U.S. Patent No. 9,020,621 (“the ’621 patent”) entitled “Network Based Media Enhancement Function Based on an Identifier.” I filed the earliest provisional application to which that patent claims priority on September 18, 2009, and the USPTO issued this patent on April 28, 2015. This was directed to a network-based processing element for processing audio information to improve the

Relevant to this Report, my device was intended for use in a wireless communications-based system utilizing both a cellular communications network and an IP network as shown in Figure 2 below:



22. The claimed invention in this patent was directed to calls made to a telephony network or a VoIP network where voice or a voice and video call is transacted. In addition to the inventive features of my patent, the patent specification also walks through some well-known architectures and methods for routing calls, including VoIP calls. Figure 2 above depicts the integration of the media enhancement architecture with legacy circuit switch telephony networks.

Figure 3 below depicts the integration of the media enhancement architecture with the 3GPP Internet Media Subsystem (IMS) packet-based telephony system, which supported Voice over LTE (“VoLTE”) telephony services.



Id. at Figure 3.

23. My CV, which includes a more detailed summary of my background and experience, as well as a complete list of my publications and a list of previous engagements in patents, is included as Exhibit 1004.

II. Understanding of the Governing Law

A. Legal Standard for Prior Art

24. I understand that a patent or other publication must first qualify as prior art before it can be used to invalidate a patent claim.

25. I am informed by counsel that the applicable law in this case for prior art is 35 U.S.C. § 102 as written before the America Invents Act.

26. I am informed that the patent owner Lemko Corporation (“Lemko”) contends that the ’980 patent claims priority to April 23, 2008.

27. I understand that the “priority date” of a patent is the date on which it is filed, or the date on which an earlier-filed patent application is filed if the patentee claims it is entitled to the benefit of priority to that earlier-filed patent application. To be entitled to that benefit, I further understand that the earlier filed application must support the claimed subject matter in the manner required by 35 U.S.C. § 112. I understand that this section requires the patent’s specification to contain a sufficient written description of the claimed invention to demonstrate that the applicant actually possessed the invention as of the filing date as broadly as it is claimed. In considering whether this written description requirement is met, I understand that I should consider the written description from the viewpoint of a person of ordinary skill in the art. I also understand that I should consider whether this person of ordinary skill would have recognized that the written description describes the full scope of the claimed invention and that the inventor actually possessed that full scope as of the claimed effective filing date. I also understand that law for priority is not the same as the obviousness analysis under 35 U.S.C. § 103.

28. I further understand that the priority date is significant because patents, systems, or documents that are public prior to the priority date may invalidate the claims.

29. I understand that a U.S. patent or published patent application may qualify as prior art to an asserted patent if the date of publication or issuance is prior to the invention in the asserted patent. I further understand that a printed publication, such as a book or an article published in a magazine or trade publication, may qualify as prior art to an asserted patent if the date of publication is prior to the invention of the asserted patent. A paper or presentation may also qualify as prior art if presented at a publicly available seminar, conference, or trade show prior to the invention in the asserted patent.

30. I understand that a U.S. patent or published patent application may qualify as prior art to the asserted patent if the application for that U.S. patent or published patent application was filed in the United States before the invention of the asserted patent.

31. I understand that to qualify as prior art, a reference must contain an enabling disclosure that allows one of ordinary skill to practice the claims without undue experimentation.

32. I understand that documents and materials that qualify as prior art can be used to invalidate a patent claim as anticipated or as obvious.

B. Invalidity by Anticipation

33. I understand that once the claims of a patent have been properly construed, determining anticipation of a patent claim requires a comparison of the properly construed claim language to the prior art on a limitation-by-limitation basis.

34. I understand that a prior art reference “anticipates” an asserted claim, and thus renders the claim invalid, if all elements of the claim are disclosed in that prior art reference, either explicitly or inherently (i.e., necessarily present or implied).

35. I have written this report with the understanding that in an inter partes review, anticipation must be shown by a preponderance of the evidence.

C. Invalidity by Obviousness

36. I have been instructed by counsel on the law regarding obviousness, and understand that even if a patent is not anticipated, it is still invalid under 35 U.S.C. § 103, as written before the America Invents Act, if the differences between the claimed subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person of ordinary skill in the pertinent art.

37. I understand that a person of ordinary skill in the art provides a reference point from which the prior art and claimed invention should be viewed.

This reference point prevents a person of ordinary skill from using one's insight or hindsight in deciding whether a claim is obvious.

38. I also understand that an obviousness determination includes the consideration of various factors such as (1) the scope and content of the prior art, (2) the differences between the prior art and the challenged claims, (3) the level of ordinary skill in the pertinent art, and (4) the existence of secondary considerations such as commercial success, long-felt but unresolved needs, failure of others, etc.

39. I am informed that secondary considerations of non-obviousness may include (1) a long-felt but unmet need in the prior art that was satisfied by the invention of the patent, (2) commercial success or lack of commercial success of processes covered by the patent, (3) unexpected results achieved by the invention, (4) praise of the invention by others skilled in the art, (5) taking of licenses under the patent by others, and (6) deliberate copying of the invention. I also understand that there must be a relationship or "nexus" between any such secondary indicia and the invention. I further understand that contemporaneous and independent invention by others is a secondary consideration supporting an obviousness determination.

40. I understand that an obviousness evaluation can be based on a combination of multiple prior art references. I understand that the prior art references themselves may provide a suggestion, motivation, or reason to combine,

but other times the link between two or more prior art references is simple common sense. I further understand that obviousness analysis recognizes that market demand, rather than scientific literature, can drive innovation, and that a motivation to combine references may be supplied by the direction of the marketplace.

41. I understand that if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

42. I also understand that practical and common-sense considerations should guide a proper obviousness analysis, because familiar items may have obvious uses beyond their primary purposes. I further understand that a person of ordinary skill in the art looking to overcome a problem will often be able to fit the teachings of multiple publications together like pieces of a puzzle, although the prior art need not be like two puzzle pieces that must fit perfectly together. I understand that obviousness analysis therefore considers the inferences and creative steps that a person of ordinary skill in the art would employ under the circumstances.

43. I understand that a particular combination may be proven obvious by showing that it was obvious to try the combination. For example, when there is a

design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp because the result is likely the product not of innovation but of ordinary skill and common sense.

44. I understand that the combination of familiar elements according to known methods may be proven obvious when it does no more than yield predictable results. When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, obviousness likely bars its patentability.

45. It is further my understanding that a proper obviousness analysis focuses on what was known or obvious to a person of ordinary skill in the art, not just the patentee. Accordingly, I understand that any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed. Additionally, a reference outside of the field of endeavor may still be prior art if the reference is reasonably pertinent to the particular problem being solved by the patentee.

46. I understand that a claim can be obvious in light of a single reference, without the need to combine references, if the elements of the claim that are not

found explicitly or inherently in the reference can be supplied by the common sense and knowledge of one of skill in the art.

47. I understand that a person of ordinary skill could have combined two pieces of prior art or substituted one prior art element for another if the substitution can be made with predictable results, even if the swapped-in element is different from the swapped-out element. In other words, the prior art need not be like two puzzle pieces that must fit together perfectly. The relevant question is whether prior art techniques are interoperable with respect to one another, such that a person of skill would view them as a design choice, or whether a person of skill could apply prior art techniques into a new combined system. The person of ordinary skill would use ordinary creativity and is not limited like an automaton.

48. In sum, my understanding is that prior art teachings are properly combined where a person of ordinary skill in the art, having the understanding and knowledge reflected in the prior art and motivated by the general problem facing the inventor, would have been led to make the combination of elements recited in the claims. Under this analysis, the prior art references themselves, or any need or problem known in the field of endeavor at the time of the invention, can provide a reason for combining the elements of multiple prior art references in the claimed manner.

49. I have been informed and understand that the obviousness analysis requires a comparison of the properly construed claim language to the prior art on a limitation-by-limitation basis.

50. I have written this report with the understanding that in an inter partes review, obviousness must be shown by a preponderance of the evidence.

D. Interpreting Claims Before the Patent Office

51. I understand that IPR is a proceeding before the United States Patent & Trademark Office (“USPTO”) for evaluating the validity of issued patent claims. I understand that, in an IPR, a claim term is interpreted in a manner consistent with the standard used in patent litigation. That standard generally construes the claims according to their “ordinary and customary” meaning in view of the claim language, specification, and file history, and where applicable, relevant other evidence.

52. I understand that a patent’s “specification” includes all the figures, discussion, and claims within the patent. I understand that the USPTO will look to the specification and prosecution history to see if there is a definition for a given claim term, and if not, will apply the ordinary and customary meaning from the perspective of a POSA at the time in which the alleged invention was made.

E. Materials Relied On in Forming My Opinions

53. In forming my opinions expressed in this declaration, I have relied on my own knowledge, experience, and expertise, as well as the knowledge of a POSA in the relevant timeframe.

54. In addition, I have reviewed the Challenged Patent (Ex. 1001), its prosecution history (Ex. 1002), and the references listed above in the Table of Exhibits.

F. Level of Ordinary Skill in the Art

55. My opinions are provided based on what a person of ordinary skill in the art in the technical field of the purported invention would have understood at the time of the purported invention of the Challenged Patent. Around 2008, a POSA in the field of the '980 Patent's field would have had a bachelor's degree in electrical engineering, computer engineering or an equivalent, as well as two years of industry experience related to telecommunications networks. Such knowledge would encompass the design, architecture, and operations of mobile telecom networks, including gateways, servers, and user devices that were compliant with various standards, and how they interact with other components of a radio access network. Additional graduate education of a POSA could substitute for professional experience, or significant experience in the field could substitute for formal education. The basis for my familiarity with the level of ordinary skill is my

interaction with large numbers of workers in the telecommunications and communications industry who were at this level of skill. As shown by my experience listed above and my CV (Ex. 1004), I was qualified as a POSA at the relevant time.

56. In reaching this opinion as to the hypothetical person of ordinary skill in the art, I have considered the types of problems encountered in the art, the prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level and professional capabilities of workers in the field.

57. I have been informed and understand that the content of a patent and prior art should be interpreted the way a person of ordinary skill in the art would have interpreted those references at the time of the invention of the patent. I understand that the person of ordinary skill is a hypothetical concept referring to one who thinks along the lines of conventional wisdom at the time.

G. Identification of Challenge

58. Claim 1 of the '980 patent is unpatentable on the following ground:

Ground	Claim	Basis for Unpatentability
1	1	Obvious over Waylett (Ex. 1005) in view of knowledge of POSA

III. U.S. Patent No. 9,191,980

A. Assumed Effective Filing Date

59. The '980 patent was filed on September 16, 2011 and claims priority through an intervening patent to an earlier patent application filed on April 23, 2008. For purposes of this Declaration, I have been informed by counsel for this Petition to assume that the '980 patent claims are entitled to a priority date of April 23, 2008.

B. Technology Overview

60. The '980 patent is related to distributed mobile communication systems. Ex. 1001, Abstract. The '980 patent states that “[a]ccess to telephony service is important for rural and isolated communities” and further that “rural areas often have limited or no telephony services.” Ex. 1001, 1:20-24.

61. The '980 patent continues that “[c]urrent telephone systems are expensive to deploy,” that “[m]any rural areas lack a population large enough to support the installation of such a system and provides an example of a “typical cellular system [that] requires a mobile switching center (MSC), a base station controller (BSC), and a home location register/visitor location register (HLR/VLR) ... cost[s] over two million dollars.” Ex. 1001, 1:30-35.

62. Thus, to solve the problem of high deployment costs, the '980 patent “provides a system and method of controlling communications through use of a flexible telecommunications device, i.e., the DMA server 304,” which purportedly

“can operate stand-alone or seamlessly within an existing cellular or other network” and “can be integrated with virtually any third party base station.” Ex. 1001, 15:39-46.

63. In describing the DMA server 304, the '980 patent states that “[it] includes a processor 340, a memory 342, a network interface 344 coupled to the private IP network 306, and a device register 346. The memory 342 includes conversion module 348 and routing module 350. The DMA server 304 also includes representative BTS interfaces 352, 354, 356, and 358. The BTS interface 354 is adapted to communicate with first and second wireless communication devices 364 and 366 via a representative first base transceiver station (BTS) device 360. Additionally, the BTS interface 354 is adapted to communicate with wireless communication devices 368 and 370 via a representative second base transceiver station (BTS) device 362.” Ex. 1001, 11:14-25. Further, the '980 patent acknowledges that “the DMA server 304 may be implemented using inexpensive and widely available computer equipment.” Ex. 1001, 15:57-59.

64. The '980 patent's Figure 1 depicts an illustrative distributed mobile architecture system:

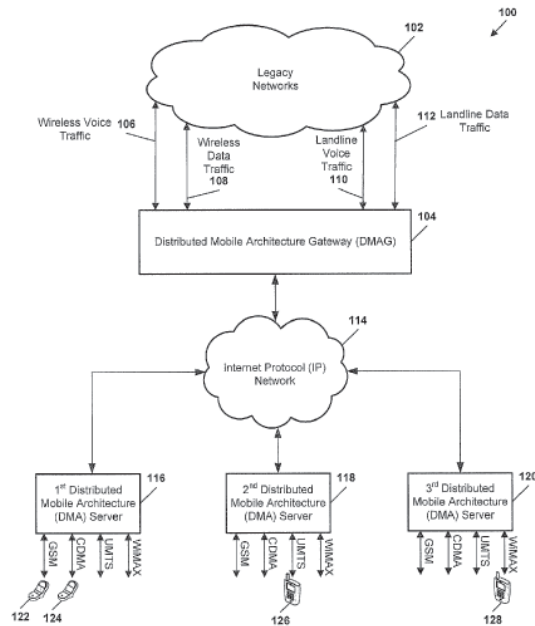
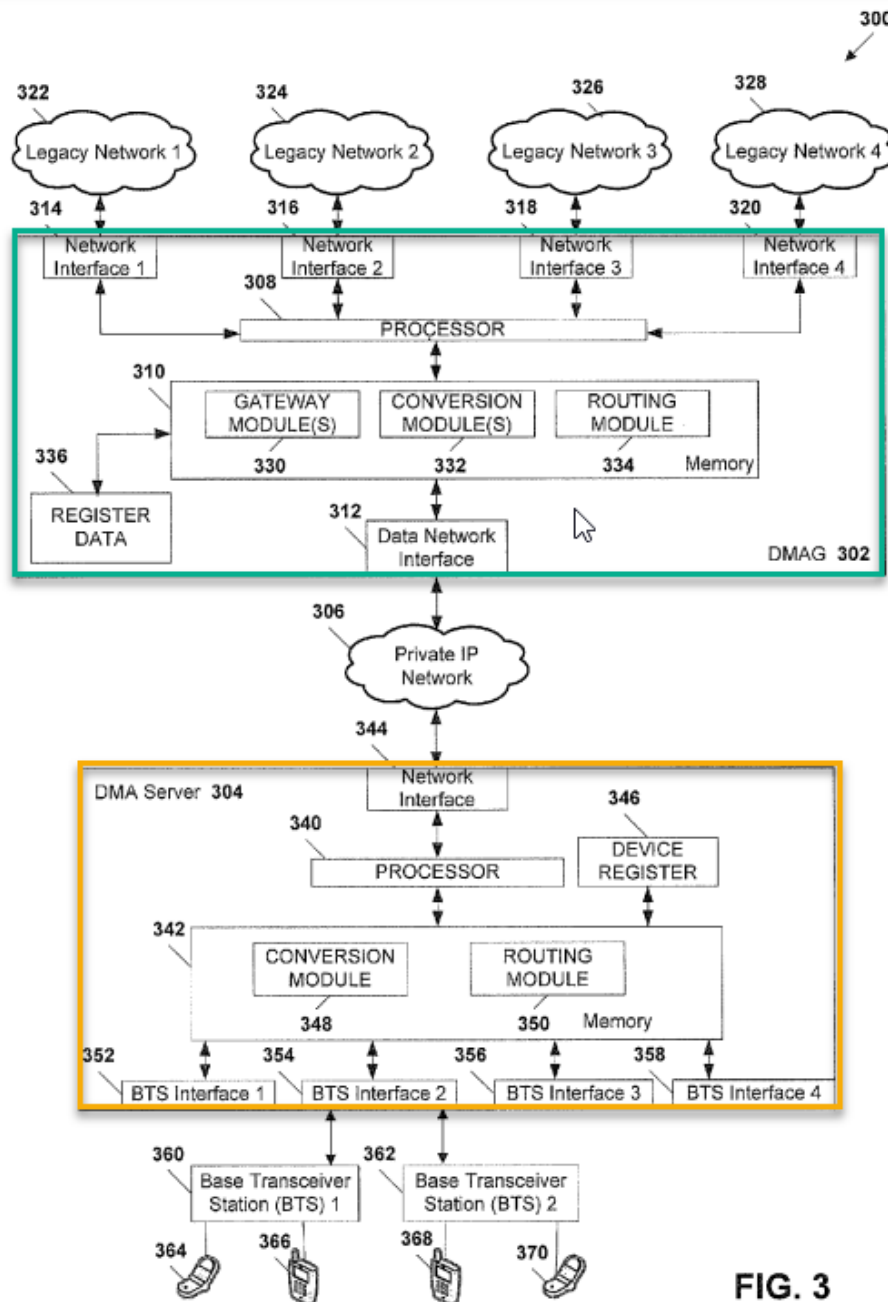


FIG. 1

Ex. 1001, Fig. 1. As depicted in Figure 1, multiple DMA servers (116, 118, 120) are in connection with wireless communication devices (122, 124, 126, 128). *Id.*, 2:45-56. The DMA servers are connected to a distributed mobile architecture gateway (“DMAG”) via an IP network (114). The DMAG (104) is in connection with legacy networks (102) such as “a time division multiple access (TDMA) network” or “a code division multiple access (CDMA) network.” *Id.*, 5:26-30.

65. As shown in Figure 3 reproduced below, the ’980 patent states that a DMA server such as DMA server 304 (annotated in yellow) is coupled to a DMA gateway such as DMAG 302 (annotated in green):



Ex. 1001, annotated Fig. 3 (emphasis added).

66. The DMAG (e.g., DMAG 302) routes voice traffic and data traffic between the one or more legacy networks (e.g., legacy networks 322–328) and one or more wireless communication devices (e.g., devices 364–370) via one or more

DMA servers (*e.g.*, DMA server 304). *See, e.g.*, Ex. 1001, 2:44-48. The '980 patent states that a DMA server may include registration data identifying wireless communication devices that are in its coverage area and registration data identifying wireless communication devices in the coverage area of other DMA servers. Using this registration data, a given DMA server can route traffic (data and/or voice) for wireless communication devices in the respective coverage areas of other DMA servers, in the event of a failure of one of the other DMA servers. For example, "if the DMA server 232 fails, the DMA server 230 can route communications between ... DMAG 204 and the wireless communication devices in the coverage area of the failed DMA server 232." *See, e.g.*, Ex. 1001, 8:18-46.

67. The '980 patent states: "In operation, the DMA server 304 routes a call originating from the wireless communications device 360 via the private IP network 306 to another DMA server (not shown) or to the DMAG 302." Ex. 1001, 11:44-47. The BTS interface (of DMA server 304) handling the call "notifies the routing module 354 [included within DMA server 304] that ... [the] call requires routing. The routing module 354 determines a route for the call based on the destination address of the call." Ex. 1001, 11:47-51. The conversion module (included within DMA server 304) "converts the call information to data packets and sends the data packets ... to the private IP network 306 via the network interface 344." Ex. 1001, 11:51-54.

68. Claim 1 is shown below:

[Claim] 1. A method, comprising:
receiving a first call from a first mobile device at a first base transceiver station (BTS) interface of a first distributed mobile architecture (DMA) server, wherein the first call is associated with a destination device;
determining that a first distributed mobile architecture gateway (DMAG) supports communication with the destination device based on registration data stored at the first DMA server, wherein the registration data indicates that the destination device is not within a wireless coverage area associated with the first DMA server, and wherein the first DMAG is communicatively coupled to a plurality of DMA servers including the first DMA server;
converting first voice information associated with the first call to first packet data;
and
routing the first packet data to the destination device via the first DMAG.

C. Relevant Prosecution History of the '980 Patent

69. During prosecution, the claims were amended, in response to an Office Action anticipation rejection in view of U.S. Patent Publication No. 2004/0203677 (“Brown”), to recite that the “first DMAG is communicatively coupled to a plurality of DMA servers including the first DMA server.” Ex. 1002, 173. The claims were later amended further, in response to an Office Action obviousness rejection in view of Brown and U.S. Patent Publication No. 2012/0020293, to recite the term “*first*” in front of the claim elements “call,” “base transceiver interface,” “packet data,” and “voice information.” Ex. 1002 at 270. The claims were allowed on July 31, 2015. Ex. 1002 at 391-395.

IV. Claim Construction

70. It is my opinion that, for purposes of this Declaration¹, no construction of claim terms is necessary.

V. Detailed Discussion of the Grounds for Unpatentability

71. The Challenged Claim is unpatentable based on one ground. Ground 1 establishes that claim 1 is obvious in view of Waylett and the knowledge of a POSA.

A. Prior Art Overviews

(1) Waylett (Ex. 1005)

72. US Patent No. 8,184,603 to Waylett (“Waylett”) was filed on July 15, 2004 and claims priority through several continuations filed as early as January 14, 2003. Waylett issued on May 22, 2012. I have been instructed to assume that Waylett is prior art.

73. Waylett describes a communication system that includes at least “a private cellular network coupled to [a] WLAN (wireless local area network) to facilitate communications between the UEs [user equipment] and mobile stations

¹ This claim-construction analysis is not a concession as to the scope of any claim term in litigation, or a waiver of any argument in any proceeding that claim terms are indefinite, invalid, or unpatentable.

associated with the private cellular network.” Ex. 1005, 4:24-27. Waylett’s Figure 5 is exemplary:

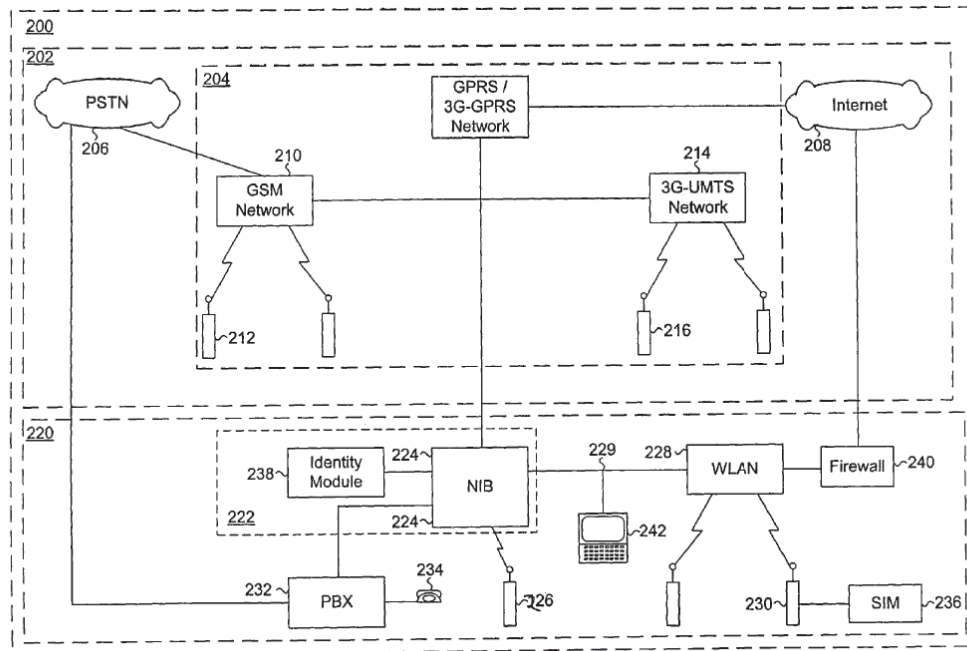


FIG. 5

Ex. 1005, Fig. 5. Waylett’s Figure 5 depicts “private cellular network” 222, that includes an “Identity Module 238” and a “NIB 224.” *Id.*, 9:33-10:48 and Fig. 5.

74. The NIB 224 is described as a “Network-In-A-Box” that was “commercially available from interWAVE Communications Inc.” *Id.*, 9:36-40. The NIB “includes a MSC [mobile switching center], a BSC [base station controller] and a BTS [base transceiver station] in a single enclosure.” Ex. 1005, 9:41-42.

75. In describing the NIB, Waylett states that the NIB includes “(i) a power supply 138; (ii) a number of plug-in-modules or cards 140, including a

number of radio frequency (RF) transceivers for communicating with the RTSs 118; (iii) an RF combiner 142 for combining signals to and/or from the multiple transceivers; (iv) an RF power amplifier 144 for amplifying received and/or transmitted signals; and (v) an antenna 146.” Ex. 1005, 8:10-17.

76. Waylett states that the NIB 224 couples the WLAN 228 to the public network 202 and is “adapted to enable voice and data communication between the private UEs 230 and the private mobile stations 226, public mobile stations 212, public UEs 216, PBX telephones 234, and telephones ... coupled to the PSTN 206 and/or the Internet 208.” Ex. 1005, 9:47-53.

77. Waylett’s “Identity Module 238” is described as a memory system coupled to the NIB that stores identifiers “that can be permanently or temporarily associated with one or more private UEs, to enable the private UE to communicate with ... the private cellular networks 222 via the WLAN 228.” Ex. 1005, 10:38-48.

78. Waylett’s Figure 5 depicts “private MS [mobile stations] 226” in wireless communication with the NIB. Ex. 1005, Fig. 5.

79. Waylett’s Figure 5 also depicts that the NIB is also in communication with WLAN 228 through LAN 229. Ex. 1005, Fig. 5. The WLAN 228 is also connected to private UEs 230. *Id.* A POSA would have understood that calls from

MS 226 go through the NIB 224 over LAN 229 to the WLAN access points in order to reach private UEs 230. Ex. 1005, 9:53-57.

80. WLAN 228 can include multiple separate and discrete networks, including networks using “a number of different protocols including IEEE 802.11 standards (802.11).” WLAN 228 (utilizing 802.11) is disclosed as a packet based system, and supporting Voice over Internet Protocol (VoIP). Ex. 1005, 12:11-20. It is my opinion that a POSA would have understood that conversion of a voice call from MS 226 through the WLAN to a UE connected via an 802.11 network requires conversion of voice data to packet data. *See, e.g.*, U.S. Patent No. 7,548,536, 1:33-36 (“VoIP uses existing LAN technology to transport voice and fax signals by converting these signals into digital data and encapsulating the data for transmission over an IP network.”). Waylett discloses that the conversion technology may exist at the private UE 230 “or a VoIP [voice over IP] program included with computer software or programs downloaded from the WLAN 228. Ex. 1005, 12:15-20.

81. Waylett describes the same problem identified by the ’980 patent — *high deployment costs* of conventional telephone systems. *Compare* Ex. 1005, 1:44-49 *with* Ex. 1001, 1:30-35. *See also* Ex. 1005, 1:57-60 (describing “the difficulty and expense of scaling the network to provide services to additional

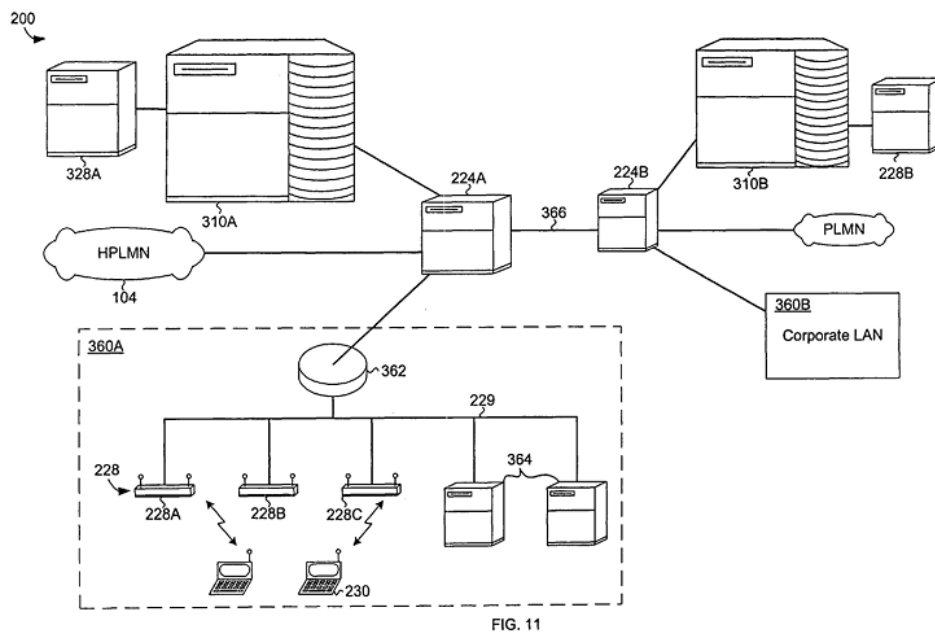
users or additional services”) and Ex. 1001, 16:22-25 (discussing a need for a scalable system that can “broaden, or otherwise extend coverage”).

82. A POSA would have recognized that both Waylett and the ’980 patent propose the same solution, as well. Waylett discloses “a complete, stand-alone Network-In-a-Box,” *e.g.*, NIB 224 for use in a communication system “providing voice and data communication between a public network and a number of UEs.” Ex. 1005, 8:7-8, 2:25-27. Likewise, the ’980 patent describes a DMA server as “a flexible telecommunications device [that] can operate stand-alone or seamlessly within an existing cellular or other network,” “can be integrated with virtually any third party base station,” and can “also send and receive voice and data traffic from the wireless communication devices ... to the legacy networks.” Ex. 1001, 15:39-46, 4:45-47. Notably, Waylett describes its NIB as having similar components as the DMA server in the ’980 patent: “a single integrated unit [to] provide wireless access via more than one wireless protocol, such as GSM, CDMA, UMTS, and WiMAX.” Ex. 1001, 4:65–5:1. *Compare with* Ex. 1005, 8:10–22 (disclosing that the NIB is “a single enclosure ... including a number of radio frequency (RF) transceivers [including] at least one GSM/GPRS transceiver[,] ... at least one WLAN transceiver[.]”)

83. Indeed, both the ’980 patent and Waylett recognize the need for telephony services to rural and under served communities. The ’980 patent states

“[a]ccess to telephony service is important for rural and isolated communities” and further that “rural areas often have limited or no telephony services” Ex. 1001, 1:20-24. Likewise, embodiments disclosed in Waylett are directed at “under served areas or communities” or “communities hitherto unserved by conventional wireless or wired communications systems.” Ex. 1005, 7:59-63, 7:67-8:3.

84. Similar to the '980 patent describing communicatively coupled DMA servers, Waylett also describes that multiple NIBs can work together, such as those in Figure 11:



Ex. 1005, Fig. 11. Waylett explains that such systems, shown above, are “particularly suitable for enterprises operating a number of different WLANs 228 or corporate LANS 360A, 360B, at a number of different sites.” Ex. 1005, 17:11–

14; see also 17:7–16. Waylett discloses that the WLANs communicate with the NIBs through access points in order to communicate with multiple UEs. *Id.*, 9:53–57; 17:2–6 (“handle or serve at least about 100,000 mobile stations, UEs,” or users).

85. Based on the above disclosures, a POSA would have understood that Waylett and the ’980 patent thus describe the same problem of high deployment costs of conventional telephone systems and recognize the need to serve underserved communities. Such a person would have recognized that both propose the same solution: a single integrated unit to provide wireless access via more than one wireless protocol.

B. Ground 1: Claim 1 Is Rendered Obvious by Waylett and the Knowledge of A POSA

(1) Claim 1

a. Element 1.1: *A method, comprising:*

86. A POSA would have understood that Waylett discloses this claim element.

87. Waylett, for example, discloses a “method of enabling a number of UEs to communicate with a ... private network via the WLAN ... includ[ing] steps of receiving in the WLAN call information to or from one of the number of UEs: providing subscriber identification and security information for the UE to an authentication server; and coupling the UE to the public network or private

network over the WLAN.” Ex. 1005, 5:1-8; *see also id.*, 10:36-38 (“enable the private UE to communicate with the ... private cellular network 222 via the WLAN 228”).

88. For these reasons, a POSA would have understood that Waylett discloses the preamble.

- b. *Element 1.2: receiving a first call from a first mobile device at a first base transceiver station (BTS) interface of a first distributed mobile architecture (DMA) server, wherein the first call is associated with a destination device;***

89. A POSA would have understood that Waylett discloses and/or renders this limitation obvious. For example, Waylett’s Figure 5 depicts “communication system 200” which includes a MS 226 connected to a Network-In-A-Box 224 which is further connected through WLAN 228 to UEs 230. A POSA would have understood that given Waylett’s Figure 5 configuration and associated disclosure using Waylett’s system to place a call from MS 226 to UE 230s through the NIB 224/WLAN 228 pathways was obvious.

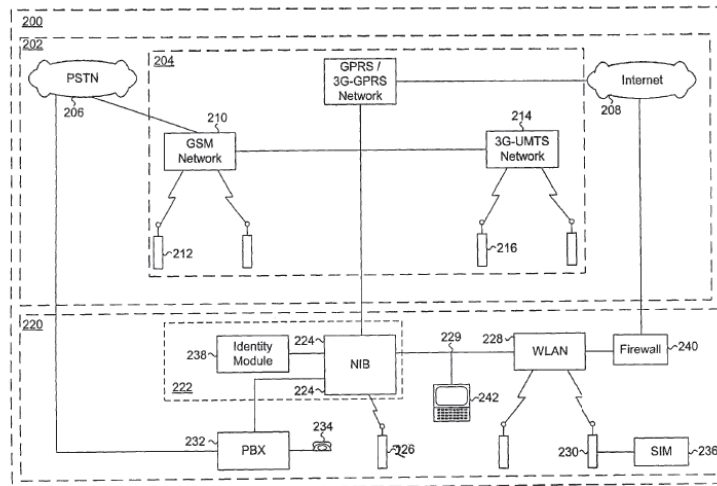


FIG. 5

Ex. 1005, Fig. 5.

90. A POSA would have understood that the MS 226 communicates with the NIB 224 via a base transceiver station interface. For example, Waylett discloses that the NIB 224 includes a base transceiver station interface. Ex. 1005 at 9:41-42 (NIB “includes a includes a MSC [mobile switching center], a BSC [base station controller] *and a BTS [base transceiver station]* in a single enclosure”). A POSA would have recognized the lightning bolt symbol in Waylett’s Figure 5 as indicating a wireless connection exists between MS 226 and NIB 224 as it is a standard notation format for indicating a wireless connection. A POSA would also have understood that the MS 226, which Waylett identifies as a “private mobile stations” (Ex. 1005, 9:50) are “mobile” and communicate wirelessly. A POSA would have recognized that Waylett’s NIB’s BST is included to receive wireless communications from mobile devices at least because base

station transceivers are pieces of equipment that are designed to transmit and receive wireless signals from mobile devices over a network.

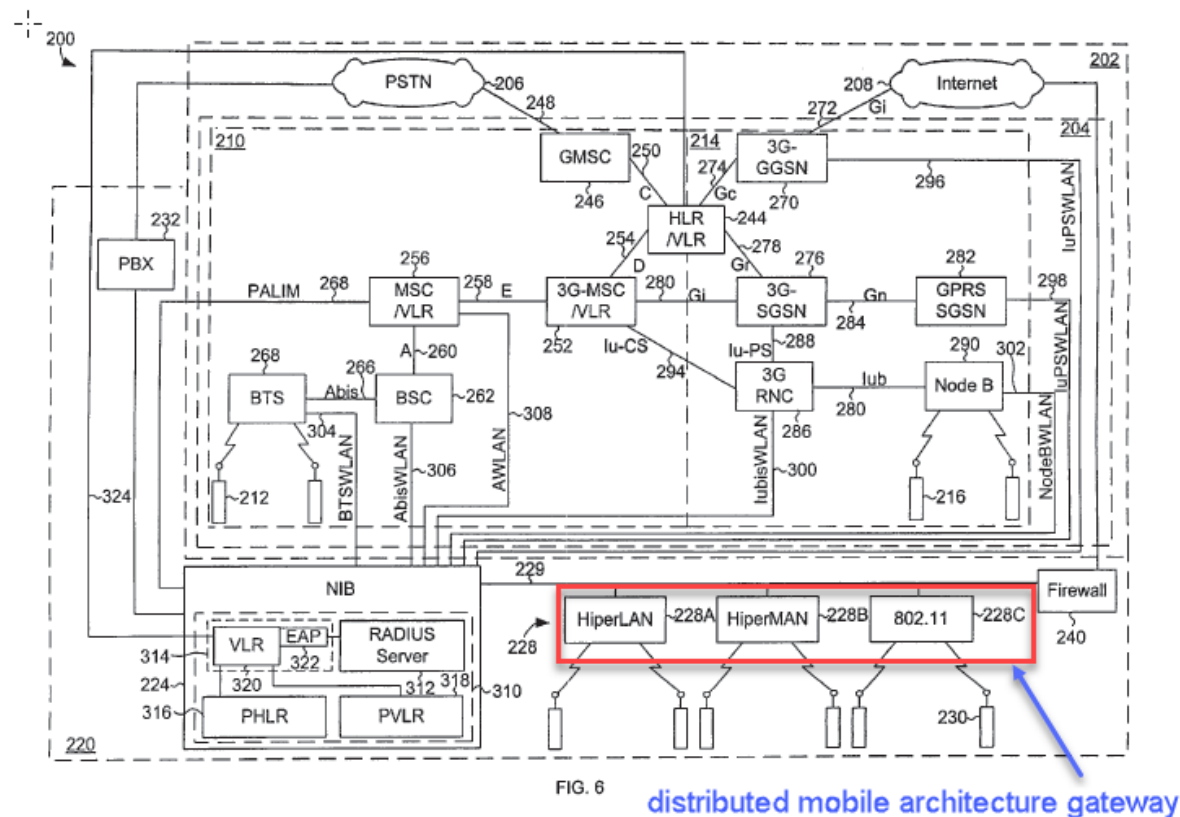
91. A POSA would also have understood that a call originating from MS 226 would be associated with a destination device. In telecommunications, the communication originates by identifying the phone number of the destination device being called. Waylett expressly identifies using its communication system to “enable voice and data communications between the private UEs 230 and the private mobile stations 226” and thus the calls would be associated with both the originating and receiving devices. Ex. 1005, 9:48-50.

92. For these reasons, a POSA would have understood that Waylett renders this limitation obvious.

- c. ***Element 1.3: determining that a first distributed mobile architecture gateway (DMAG) supports communication with the destination device based on registration data stored at the first DMA server, wherein the registration data indicates that the destination device is not within a wireless coverage area associated with the first DMA server, and***

93. A POSA would have understood that Waylett discloses or renders this limitation obvious. For example, Waylett discloses a WLAN with distributed access points that are connected to the NIB. Ex. 1005, 11:23-26. Such a person would have recognized that the access points are disclosed as “separate and distinct” and are illustrated as such, for example in Figure 6 of Waylett shown

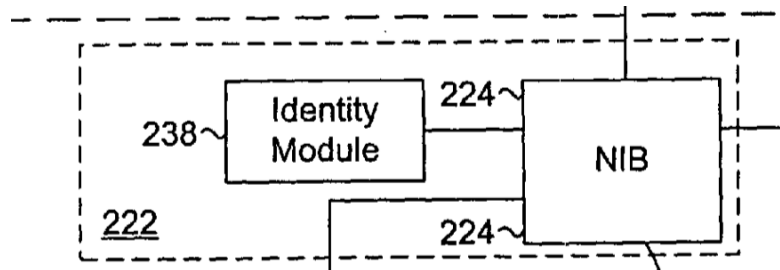
below:



Ex. 1005, Fig. 6. Waylett further discloses that the WLAN access points communicate with different network protocols, including for example a GPRS network protocol. Ex. 1005, 11:21-47 and 13:28-63. The '980 patent similarly describes that its DMAG communicates with a GPRS network. Ex. 1001, Ex. 1001, 9:10-36 and FIG 3. Thus, in my opinion, a POSA would have understood that the WLAN is a distributed mobile architecture gateway (DMAG) as claimed.

94. It is my further opinion that a POSA would have found it obvious to modify Waylett's NIB (the claimed DMA server) to include "registration data" as

claimed. Specifically, Waylett's NIB is described as coupled to an "Identity Module 238" to "enable the private UE to communication with the ... private cellular network 222 via the WLAN 228." Ex. 1005, 10:36-38. Figure 5 of Waylett shows this identity module:



Ex. 1005, Fig. 5 (cropped to show private network 222 depicting NIB 224 and Identity module 238).

A POSA would have understood that the Identity Module stores registration data in the form of "at least one identifier or virtual identifier stored therein that can be ... associated with one or more private UEs 230" and "subscriber identification and security information." *Id.*, 10:32-47. The '980 patent confirms my opinion in that it describes "registration data" in a similar manner. '980 patent, 8:10-14 ("Registration data related to a particular wireless communication device may include an identifier such as an international mobile subscriber identification (IMSI), associated with the particular wireless communication device.").

95. While Waylett describes the registration data being stored at the Identity Module coupled to a NIB, in my opinion that a POSA would have found it obvious to store the data as part of the NIB's memory. Waylett itself teaches storing similar information in the NIB. For example, Waylett discloses use of a

home location registry (HLR) that stores identifiers and subscriber and security information. Ex. 1005, 14:32-35 (HLR “stores information on UEs 230 registered or subscribing to the communication system 200, and more particularly to the WLAN 228 and/or the private cellular network 222.”); *id.*, 12:38-42 (HLR “also includes an authentication and accounting server or function (not shown) used by many service providers to authorize access to the public GSM network 210 and/or the public 3G-network 214”). Waylett teaches combining the HLR with the NIB as a simple matter of design choice. Ex. 1005, 14:29-32 (HLR “can be combined with the NIB 224”). There are large similarities between the type of registration data stored by Waylett’s Identity Module and Waylett’s HLR, and given the similarities, a POSA would have been motivated to combine the Identity Module with a NIB just like the teaching of combining the HLR with the NIB. In my opinion, this type of data storage was very well known at the relevant time and a POSA would be able to make the modification as a simple implementation with predictable results. There are also other reasons why a POSA would be motivated to make this modification. For example, having a separate Identity Module component would require an extra cost associated with the extra connections, memory hardware, and space needed, and the modification would have been motivated in order to reduce these costs. The modification would also have been motivated to improve the system in well known ways such as reducing delays in

accessing information associated with separate components, which would result in faster processing. In my experience, reducing delays and costs associated with extra components has been a primary motivation since well before the earliest effective priority date.

96. A POSA would have understood that the identifiers “enable” communication by serving as a reference point for the for the NIB to query to determine the location of a private UE on the WLAN. For example, communication between WLAN and mobile terminals was in general practice at the relevant time of the effective filing date of the ’980 patent. Bachmann provides an example of WLAN messages including implicit and explicit identifiers to identify the WLAN. Ex. 1006, Abstract, 9:10-21. Ex. 1006, Abstract (“[t]his invention relates to a method for configuring a context for a connection delivering a packet data service to a mobile terminal via a target wireless access network.”) Bachmann describes the general approach of associating and authenticating between a WLAN and a mobile terminal where WLAN messages can include “identifier[s] of the WLAN access network. Ex. 1006, 9:10-21. The identifiers can “for example be included implicitly by including the optional sender IP address of the Network Access Server (NAS-IP) serving as a RADIUS client for the mobile terminal to a RADIUS message.” *Id.* The identifiers could alternatively “also be included explicitly, for example by including the WLAN access point’s

MAC address (link identifier) or the access router's address (APID) to an EAP message by the mobile terminal or by an entity in the WLAN access network.” *Id.*

97. It is my further opinion that the registration data is used to determine whether the DMAG (WLAN 228) supports communication with the destination device (UEs 230) as claimed. The registration data is, as disclosed by Waylett, associated with the UEs 230 that are communicating on the WLAN 228 networks. *See, e.g.,* Ex. 1005 at 10:53-55 (“The virtual identifiers can be associated with the private UES 230 on a one-to-one basis; on a one-to-many basis; or on a many-to-many basis ...”), 10:32-37 (“at least one identifier or virtual identifier stored therein that can be permanently or temporarily associated with one or more private UEs 230, to enable the private UE to communicate with the public network 102 and/or the private cellular network 222 via the WLAN228”), and 10:46-48 (“the identity module 238 includes subscriber identification and security information stored in a memory system (not shown) coupled to the NIB 224”). As such, and in my opinion, it would have been obvious to a POSA to use these identifiers to “identify” that the WLAN supports communication with the associated UEs. Further, cellular to WLAN communications were widely known and implemented at the time of the earliest effective filing date. These systems would use WLAN identifiers included in WLAN messages to identify the WLAN that is routing the information to the WLAN connected call. For example, U.S. Patent No. 7,969,931

(Ex. 1006), titled “WLAN to UMTS handover with network requested PDP context activation” discloses a typical procedure where implicit and explicit identifiers are used to identify a WLAN that supports communication with the call. Specifically, the ’931 patent discloses:

When transporting EAP messages via RADIUS or Diameter an identifier of the WLAN access network is included in the messages. This identifier can for example be included implicitly by including the optional sender IP address of the Network Access Server (NAS-IP) serving as a RADIUS client for the mobile terminal to a RADIUS message. Alternatively, the WLAN access network identifier may also be included explicitly, for example by including the WLAN access point's MAC address (link identifier) or the access router's address (APID) to an EAP message by the mobile terminal or by an entity in the WLAN access network.

Ex. 1006, 9:10-21. In my opinion, a POSA would understand that such WLAN identifiers are either stored in Waylett’s Identity Module and NIB (under the proposed modification), or it would have been obvious and simple to implement such WLAN identifiers in Waylett’s Identity Module/NIB as registration data for determining the relevant WLAN supports communication with the UE 230 destination device.

98. It is my further opinion that Waylett renders obvious “*wherein the registration data indicates that the destination device is not within a wireless coverage area associated with the first DMA server*” as claimed. First, a POSA would have understood that different network protocols have different wireless coverage areas. For example, 802.11 wireless networks do not overlap with GPRS networks as the receiving devices for each network are often not designed as compatible with each system. A POSA would have found it obvious to include a WLAN with at least one different wireless coverage area than the NIB, for example as taught by Waylett “to ensure the interoperability of wireless communications equipment operating in the same spectrum but manufactured by different manufacturers.” Ex. 1005, 11:26-29. This is further confirmed by Waylett’s disclosure of the WLAN supporting “separate and distinct” access points, “each using one of a number of different protocols including IEEE 802.11 standards (802.11), and ETSI standards for BRAN, such HiperLAN or HiperMAN.” Ex. 1005, 11:23-26.

99. For these reasons, a POSA would have understood that Waylett renders this limitation obvious.

d. *Element 1.4: wherein the first DMAG is communicatively coupled to a plurality of DMA servers including the first DMA server;*

100. A POSA would have understood that Waylett discloses or renders this limitation obvious.

101. As discussed above, Waylett's Figure 5 embodiment depicts a NIB coupled to a WLAN 228. In my opinion, however, a POSA would have found it obvious to connect multiple NIBs to the WLAN 228 rendering the claim limitation obvious.

102. Specifically, Waylett itself discloses configurations where multiple private networks are connected to WLANs, with each private network including a NIB. Ex. 1005, 9:65-10:3 ("the communication system 200 can include a number of private cellular networks 222, each with an associated WLAN 228, and each linked by a private wide area network (PWAN) (not shown)"), 9:36-39 ("each of the multiple private cellular networks 222 will include at least one . . . Network-In-A-Box™ (NIB 224)"). Indeed, a POSA would have found it obvious based on Waylett's statement that "each of the multiple private cellular networks 222 will include at least one . . . "Network-In-A-Box™ (NIB 224)" to include multiple NIBs in a single private network. Ex. 1005, 9:36-39.

103. Waylett's Figure 11 embodiment discloses a configuration linking multiple NIBs 224A-B to a WLAN 228:

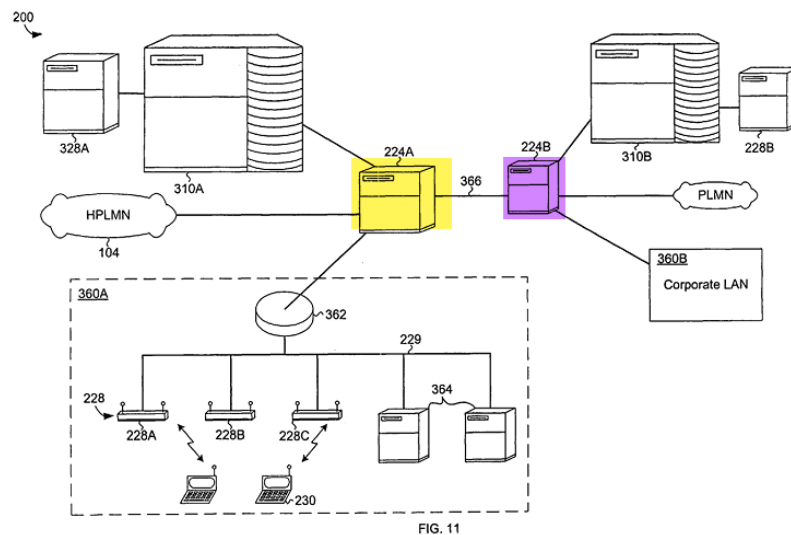


FIG. 11

Ex.1005, Figure 11.

104. In my opinion, a POSA would have modified Waylett's Figure 5 embodiment in a similar manner, linking the NIBs, as disclosed by Waylett, with a PWAN. Ex.1005, 9:65-10:3. There are a number of reasons to make such a modification that includes multiple NIBs linked to a WLAN. For example, WLAN itself discloses the motivations of "provid[ing] wireless or cellular type communication via a WLAN over an extended service area" and "to avoid tolls and maintain ownership and control of information transmitted between different sites of an enterprise linked by the PWAN." Ex. 1005, 10:1-7. A POSA would have been motivated to include multiple NIBs, as Waylett teaches, to extend to wireless coverage area as "suitable for use in enterprises operating a number of different WLANs 228 or corporate LANs 360A, 360B, at a number of different sites [such as] a chain of hotels, recreational parks or business centers owned

and/or operated by a single enterprise” or to “distribute ... registration and authentication loads.” Ex. 1005, 17:10-16. In my opinion, such a modification would be well within a POSITA’s skillset and would have been implemented with predictable results.

105. For these reasons, a POSA would have understood that Waylett renders this limitation obvious.

e. ***Element 1.5: converting first voice information associated with the first call to first packet data; and***

106. A POSA would have understood that Waylett discloses or renders this limitation obvious. Waylett discloses “enabl[ing] voice and data communications between the private UEs 230 and the private mobile stations 226.” Ex. 1005, 9:48-50. A POSA would have found it obvious that the private mobile stations 226 could transmit collect voice data, as is the typical practice during a person-to-person telephone call. A POSA would also have found it obvious to convert this voice data to packet data. For example, Waylett discloses that the WLAN 228 can include one or more packet-based networks such as IEEE 802.11. Ex. 1005, 11:23-26. Waylett also discloses “a VoIP [voice over IP] program included with computer software or programs downloaded *from the WLAN 228*” and a POSA would have understood that VoIP software converts voice to packet data. Ex. 1005, 12:15-20 (emphasis added). It is my further opinion that a POSA would have found it obvious to use the embodiment in Waylett’s Figure 5 to connect a

MS 226 voice call through the NIB224/WLAN 228 to a UE 230 connected via a 802.11 network as a predictable use of the limited set of disclosed elements. A POSA would also have understood that Waylett's NIB is capable of converting voice to packet data through its "at least one GSM/GPRS transceiver" and communication routing to a WLAN that supports communication with GPRS. Ex. 1005, 8:7-18, 13:55-63. It was well known that the GSM standard converts voice data into a packetization of speech (*e.g.*, "converting ... voice information ... to ... packet data"). See Ex. 1010, 133 and 147. Further, converting voice to packet data provides efficiency advantages for routing information and increasing capacity for voice and data communications, which is an important consideration in Waylett. Ex. 1005, Abstract and 2:20-24.

107. For these reasons, a POSA would have understood that Waylett renders this limitation obvious.

f. *Element 1.6: routing the first packet data to the destination device via the first DMAG.*

108. A POSA would have understood that Waylett discloses or renders this limitation obvious. Waylett's disclosure is focused on, in relevant part, enabling communications between the private networks 222 (*e.g.*, from MS 226) and the WLAN connected UEs 230. Ex. 1005, 9:47-53. As a necessary part of enabling these communications, the call (voice converted to packet data as discussed for the preceding element) has to be routed to the destination UE 230 device. Waylett's

disclosure of using a VoIP communication at WLAN 228 (*see, e.g.*, Ex. 1005 at 12:11-16), as stated previously, further confirms that the communication will route packet data as claimed.

109. For these reasons, a POSA would have understood that Waylett renders this limitation obvious.

C. No Secondary Considerations Exist

110. As described above, Waylett and the background knowledge of a POSA renders the challenged claim of the '980 patent obvious. No secondary indicia of non-obviousness exist having a nexus to the putative "invention" of these claims contrary to that conclusion. However, I reserve the right to supplement my opinions if Patent Owner alleges or offers any purported evidence of objective indicia of non-obviousness.

111. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed this 15th day of February, 2023.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James A. Proctor, Jr.", written in a cursive style.

James A. Proctor, Jr

Appendix A: Table of Challenged Claims of the '980 Patent

Claim Element	Claim Language
1.1	A method comprising:
1.2	receiving a first call from a first mobile device at a first base transceiver station (BTS) interface of a first distributed mobile architecture (DMA) server, wherein the first call is associated with a destination device;
1.3	determining that a first distributed mobile architecture gateway (DMAG) supports communication with the destination device based on registration data stored at the first DMA server, wherein the registration data indicates that the destination device is not within a wireless coverage area associated with the first DMA server, and
1.4	wherein the first DMAG is communicatively coupled to a plurality of DMA servers including the first DMA server;
1.5	converting first voice information associated with the first call to first packet data;
1.6	routing the first packet data to the destination device via the first DMAG.