

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ERICSSON INC.,
Petitioner,

v.

KONINKLIJKE KPN N.V.,
Patent Owner.

Case IPR2023-00581
Patent 8,886,772

**DECLARATION OF REGIS J. “BUD” BATES JR.
IN SUPPORT OF PATENT OWNER’S RESPONSE**

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LIST OF EXHIBITS REFERENCED IN DECLARATION

Exhibit	Description
1001	U.S. Patent No. 8,886,772 (“the ’772 Patent”)
1002	Declaration of Daniel J. Blumenthal, Ph.D.
1004	Prosecution History of the ’772 Patent
1005	Markman Order from <i>Koninklijke KPN NV v. Samsung Electronics America, Inc. et al.</i> , 2-14-cv-01165-JRG (E.D. Tex.)
1006	U.S. Patent Publication No. 2009/0201830 (“Angelot”)
1007	U.S. Patent Publication No. 2002/0073182 (“Zakurdaev”)
1012	RFC 2131 (“Dynamic Host Configuration Protocol”, R. Droms, March 1997)
1019	Prosecution History of U.S. Patent No. 9,838,256
2001	Declaration of Mr. Regis J. (Bud) Bates, Jr. in Support of Patent Owner dated June 15, 2013
2002	Curriculum Vitae of Regis J. (Bud) Bates, Jr.
2011	Updated Curriculum Vitae of Regis J. (Bud) Bates, Jr.
2012	Claim Construction Order in <i>Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson</i> , 22-cv-00282-JGR, Dkt. No. 176 (E.D. Tex. Oct. 13, 2023)
2013	Order in <i>Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson</i> , 22-cv-00282-JGR, Dkt. No. 195 (E.D. Tex. Nov. 2, 2023)
2014	Transcript of <i>Markman</i> Hearing October 3, 2023 in <i>Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson</i> , 22-cv-00282-JGR (E.D. Tex.)

I, Regis J. (Bud) Bates Jr., declare as follows:

I. INTRODUCTION

1. I have been retained as an expert witness by Patent Owner Koninklijke KPN N.V. (“Patent Owner” or “KPN”) to provide my independent opinions in connection the Petition for *Inter Partes* Review (“IPR”) of Claims 2-6, 11, 14, and 16 (the “Challenged Claims”) of U.S. Patent No. 8,886,772 (EX1001, “the ’772 Patent”) in the above-captioned proceeding (IPR2023-00581) before the Patent Trial and Appeal Board (“Board”). More specifically, I have been asked to render my opinions regarding the validity of the ’772 Patent with respect to the Petition for *Inter Partes* Review (“Petition”) filed by Ericsson, Inc. (“Petitioner” or “Ericsson”).

2. I understand that the Board on September 7, 2023 instituted this IPR as to the Challenged Claims of the ’772 Patent.

3. I further understand that the references relied on by the Board in instituting this IPR include: (1) U.S. Patent Publication No. 2009/0201830 (EX1006, “Angelot”), and (2) U.S. Patent Publication No. 2002/0073182) (EX1007, “Zakurdaev”). In forming my opinions in this matter, I considered these papers, as well as the other documents discussed and referenced in this Declaration.

4. I have been asked by KPN to consider whether certain references disclose, teach, or suggest the features recited in the Challenged Claims.

5. I submit this Declaration to offer my expert opinion that the Challenged Claims are novel and nonobvious in light of the prior art at the time of the invention and thus, patentable.

6. I am being compensated at my standard hourly consulting rate of \$350 for my time spent in this matter. My compensation is not contingent on the outcome of the IPR or on the substance of my opinions.

7. I have no financial interest in KPN or Ericsson. I am not an employee of KPN, Ericsson, or any affiliate or subsidiary thereof.

8. This Declaration contains statements of my opinions formed to date and the bases and reasons for those opinions. I may offer additional opinions based on further review of materials in this case, including opinions and/or testimony of other expert witnesses.

II. BACKGROUND AND QUALIFICATIONS

9. This section summarizes my career history, education, publications, and other relevant qualifications. My full *curriculum vitae* (“CV”) is included as EX2011. An earlier version of my CV was submitted as EX2002.

10. I am the founder and President of TC International Consulting, Inc. (“TCIC”). Our offices are located at 3413 Ponderosa Loop, Heber, AZ 85928. At

TCIC, I have consulted and worked with the telecommunications industry since 1989.

11. I earned a bachelor's degree in Business Management (BSBM) in 1979 from Stonehill College in Easton, Massachusetts, and I completed coursework towards a Masters of Business Administration ("MBA") degree at Lehigh University in Bethlehem, Pennsylvania and St. Joseph's College in Philadelphia, Pennsylvania.

12. I completed all the coursework but not a thesis required for the MBA degree.

13. Since 1966, I have been involved in designing, building, optimizing and training others in many aspects of telecommunications systems, including multiuser cellular and cable-based systems as well as Private Branch Exchange ("PBX") and computer networks. In that time, I have had an active role in the growth of the telecommunication industry and have personally witnessed, and contributed to, the industry's growth in terms of various technologies, infrastructure, and legal, regulatory and technical services.

14. My experience spans all layers of Open Systems Interconnection ("OSI") model, including the physical, data-link (including media access control) and network layers. For example, in my various professional roles, described

below, I have been responsible for implementing telecommunications systems up to the application layer.

15. I have written numerous books on telecommunications technology, many of which have been best sellers for publisher McGraw-Hill. My textbook titled "Voice and Data Communications Handbook" led McGraw-Hill's sales for three consecutive years and has been used by over 166 colleges and universities around the world. Other books that I have written include "Wireless Networked Communications," "Wireless Broadband Communications," "cdmaOne and cdma2000," "General Packet Radio Services (GPRS)," "Principles of Voice and Data," "Broadband Telecommunications Handbook" and "Optical Networking and Switching." I am the co-author of a book entitled "Wireless Networks Dictionary" published by Althos Publishing.

16. I have personally developed curricula and taught telecommunications classes on-site with many of the world's leading manufacturers and providers of telecommunications equipment and services. These have included classes titled or on the following topics: "Introduction to Voice Communications," "Hands on Telephony," "Installing and implementing a PBX solution," "Hands on Voice over IP," "Implementing VoIP," "Securing VoIP," "IP PBX Solutions," "Call Center Convergence," "Introduction to Data Communications," "Hands on Data

Communications," "LAN and WAN communications," "Introduction to T1 and T3," "Optical Networking and SONET," "Data and Internet Communications, a How to Course for implementing solutions," "Ethernet and Gigabit Ethernet," "Asynchronous Transfer Mode (ATM)," "Frame Relay a Data Communications design," "Wireless Communications," "Hands on Securing Wireless Networks," "Hands on Integrating Wireless Networks," "TCP/IP," "Linking LANs and WANs with Bridging and Routing," "GPRS," "GSM (including WAP and MMS)," "Next Generation Wireless," "Cisco RF Design" and "Cisco Wireless Mesh." As indicated by these names and titles, I have deep experience teaching others about the implementation of use of telecommunications networks at varying levels of generality and at most layers of OSI protocol stack.

17. I have also been personally involved in developing curricula and teaching courses on the certification of products and services with various technical specifications and standards, including Wi-Fi Certifications (CWNA), Wi-Fi Security Certification (CWSP), and CompTIA courses on WiMAX certification (Wi-MAX RF Engineer), RFID Certification (RFID+) and Convergence Technologies Professional (CTP) Certification.

18. Through my decades of involvement with the telecommunications industry, I have first-hand knowledge regarding the relationship between service

providers and carriers on one hand, and their equipment vendors, on the other, including on the extent to which providers and carriers dictate and require that equipment be certified to, or otherwise comply with, standards specifications and other technical requirements. I am also familiar with the extent to, and manner in which, providers and carriers evaluate vendor equipment on technical and business grounds, select certain equipment for use in their network, evaluate the equipment's performance and determine whether to upgrade such equipment or its associated software. I am also familiar with the criteria and methodologies that providers and carriers use to monitor data activities on their network and the extent to which providers and carriers disallow certain types of network activities or traffic patterns.

19. From 1966 to 1972, I served as a Captain of the United States Army Signal Corps. In this role, I was immersed in telecommunications technology. I performed communications systems and signal analysis on an almost daily basis and worked in communications system algorithm design, modulation and demodulation techniques and other technical issues often in the context of rapidly changing and unpredictable network deployment scenarios. For example, while in Vietnam, I worked with mobile and fixed location radio-based systems and installed a system that spanned over 400 miles for military tactical forces. I was

responsible for the operation and control of the Automatic Voice Network (AUTOVON) system in Donnersberg, Germany, and I had operational responsibility for the Pirmasens, Germany Satellite terminal. At Ft. Devens, I ran the Communications Center, which facilitated telex, Teletype and facsimile services for the military. I also participated in a six-month program on communications systems and RF basics. I worked in and with fixed and mobile Radio relay VHF systems, satellite systems, long haul troposcatter and various two-way communications models. Based on my work on these and other projects, I received significant telecommunications system training while working for the Army.

20. From 1972 to 1974, I was a Telecommunications and Facilities Manager for Damon Corporation. My responsibilities included overseeing voice and data (limited analog dial up) communications for locations across the country. The corporate communications budget was approximately \$2.5 million annually.

21. From 1974 to 1977, I was Manager of Administrative Services for Hills Department Stores in Canton, MA. In this role, my responsibilities included analyzing, selecting, and implementing major communications projects in 50 stores spread throughout the east and mid-west of the United States.

22. From 1977 to 1979, I was Telecommunications Manager for Manufacturing and International Sites for Data General Corporation in Westboro, MA. In this role, I was responsible for selecting equipment (from Bell and competitors) for 100 sites across the world, selecting services (voice, data and fax traffic) from the common carriers and selecting the appropriate means and protocols to use these goods and services. I installed a T1 network from coast to coast. I was also responsible for the installation of 30 PBXs and 40 key telephone systems.

23. From 1979 to 1986, I was Telecommunications Manager for Air Products and Chemicals, Inc., with an annual budget of \$50 million. In this role, I designed, selected, analyzed, and implemented all communications projects for the use of voice and data communications at the corporation's 440 sites around the US and 35 international sites. This included the use of telephone systems, dial up telephony and data, leased lines for voice and data and analog and digital circuits (including T1, T3 and fiber optics). I was also responsible for research, selection, and installation of over 250 telephone systems (PBX and Key Systems along with integration systems).

24. I also worked on a project to integrate the company's voice, data, TV-video and local area network (LAN) services into what is now known as a Campus

Area Network (CAN). The CAN was on a broadband cable television (CATV) system and implemented a “triple play” service on campus well before CATV companies started offering such services. In connection with this work, I worked with major cable providers on various Data Over Cable Service Interface Specification (DOCSIS) services. I understand that the CAN system was studied and written up as a Harvard Business School case related to the integration scheme and other business aspects.

25. From 1986 to 1989, I was Chief Information Officer (CIO) for the law firm, Pepper, Hamilton and Scheetz, in Philadelphia, PA. In that role, I performed complete automation of the firm’s multiple offices around the country. I was also responsible for the selection and installation of 10 PBX systems, all with major integration services, and the design, final installation and testing of local area networks (LANs). I also created the WAN access and usage through a network of digital circuits using T1 services from many of the common carriers and new competitors in the industry.

26. As noted above, I am President and Founder of TCIC, where I have worked since 1989. At TCIC, I have consulted and worked with many of the leaders in the telecommunications industry. I have provided analyses and findings to clients regarding the selection of vendors or products and directly provided

training in various technologies including Voice, Telephone Systems, Data Networks, Video, Internet, Wireless, Wireless LAN Technologies, VoIP systems and services, Fiber Optics and Infrastructure. My company has been responsible for selecting and implementing over 100 PBX systems for client companies.

27. At TCIC, I develop and conduct training for corporate users, manufacturers, and telecommunications carriers. I have personally trained individuals at all of the Regional Bell Operating Companies ("RBOCs"), over 150 Competitive Local Exchange Carriers ("CLECs"), LTE carriers, including AT&T, MCI/WorldCom (now Verizon), Sprint (now T-Mobile), MetroPCS and Cellular One, and most of the large telecommunications equipment manufacturers (Nortel-Networks, Lucent (now Nokia), Avaya, Mitel, Siemens, Alcatel (now Nokia), Newbridge, Marconi and Cisco), the United States government and other Fortune 500 companies. I was a badged-contractor for Cisco systems on their Wi-Fi products and the integration of VoIP over wireless technologies.

28. I have authored approximately 20 books, published numerous articles and papers in magazines, and taught courses and seminars in telecommunications and computers in over a dozen countries globally. I have been a technical editor for IPTV Magazine since 2016. I am a Senior member of the IEEE. I have also been a keynote speaker at conferences, events and meetings, including Comdex, the

International Communications Association, BICSI, RBOC and annual meetings for Ameritech and PacBell. I have also been the keynote speaker at Disaster Recovery Journal Annual seminars regarding DR Planning for Telecommunication Networks.

29. Additional information regarding my background, qualifications, publications, and presentations is included as part of my curriculum vitae (“CV”), which is included in EX2011. *See also* EX2002.

30. I have served as an expert witness in several IPR proceedings, district court patent infringement cases, and International Trade Commission (“ITC”) investigations in the field of telecommunications, as shown in my CV.

31. Based on my experiences described above, and as indicated in my CV, I am qualified to provide the following opinions regarding the ’772 Patent.

III. MATERIALS CONSIDERED

32. I have considered information from various sources in forming my opinions herein, including:

- the ’772 Patent and its prosecution history;
- Petitioner’s Petition (Paper 1), as well as the references cited therein;
- the declaration of Dr. Daniel J. Blumenthal, submitted by Petitioner as Exhibit 1002; and

- Patent Owner’s Preliminary Response (Paper 5), as well as the exhibits cited therein;
- The Board’s Decision Granting Institution of *Inter Partes* Review dated September 7, 2023 (Paper 8);
- The Board’s Decision Denying Patent Owner’s Request for Rehearing dated October 25, 2023 (Paper 12); and
- all documents and other materials cited to herein.

33. I have reviewed Patent Owner’s Response, to which this Declaration is being submitted as EX2010, and I agree with both its analysis and conclusions. I have also reviewed and considered each of the exhibits to the Response in forming my opinions.

IV. MY UNDERSTANDING OF CERTAIN LEGAL STANDARDS

34. I am not a legal expert and offer no opinions on the law. However, I have been informed by counsel of the various legal standards that apply, some of which I have set forth my understanding below, and I have applied these standards in arriving at my conclusions.

35. I understand that for a claim to be found unpatentable in this proceeding, Petitioner must prove that the claim is unpatentable by a

preponderance of the evidence. Put another way, Petitioner must show the claim is more likely than not anticipated or obvious in light of prior art.

a. Ordinary Skill in the Art

36. My opinions in this Declaration are based on an understanding of a person of ordinary skill in the art, which I understand is sometimes referred to by the acronym “POSITA,” as of the time of the invention.

37. I understand that claims, including the Challenged Claims, are generally interpreted according to their ordinary and customary meaning taking into consideration the so-called “intrinsic evidence” of the patent consisting of (1) the claim language; (2) the specification and drawings; and (3) the prosecution history. I understand that the Board has discretion to take into consideration so-called “extrinsic evidence” including references (prior art and non-prior art) as well as definitions from dictionaries and treatises.

38. I understand that claim terms may be explicitly defined in the patent specification or they may be implicitly defined through consistent usage in the specification. I also understand that the scope of claim terms may be limited by statements in the specification or prosecution history where the application clearly disavows or disclaims subject matter in a clear and unmistakable manner.

39. I understand that for purposes of this IPR, the standards for claim construction are the same as the standards used in the federal district courts.

b. Anticipation (35 U.S.C. § 102)

40. I understand that a claim is unpatentable as anticipated if all limitations of that claim are (1) present in a single prior art device, system, or method or (2) described in a single prior art reference.

41. To anticipate the claim, the prior art does not have to use the same words as the claim, but all of the limitations of the claim must have been present or described, either expressly or inherently, as arranged in the claim.

42. I understand that for prior art to inherently have or disclose a limitation of the claim, the prior art must necessarily include the claim limitation that is not expressly present or disclosed. I understand that inherency may not be established by probabilities or possibilities.

43. I understand that to prove anticipation, it is not enough that a prior art reference discloses distinct teachings that a POSITA might somehow combine to achieve the claimed invention. I understand that when the prior art reference purportedly discloses elements in different locations in the reference, anticipation can be established if the reference is sufficiently clear in disclosing the

combinability of those elements such that a POSITA would “at once envisage” the claimed combination.

44. I understand that where a claim lists limitations separately, the clear implication of the claim language is that those limitations are distinct components of the claimed invention. I also understand that a single element in the prior art cannot serve as two different claim limitations.

c. Obviousness (35 U.S.C. § 103)

45. I understand that a claim is unpatentable as obvious if the claimed subject matter as a whole would have been obvious to a POSITA at the time the invention was made in light of the teachings of a single prior art device, system, method, or reference, or in light of a combination of prior art.

46. I understand that obviousness is a question of law based on underlying factual issues including the level of ordinary skill in the art at the time of the patent’s alleged invention, the scope and content of the prior art, any differences between the prior art and the claimed invention, and any objective indicia of non-obviousness (if available), also known as “secondary considerations.”

47. I understand that the scope and content of prior art for deciding whether the invention was obvious includes at least prior art in the same field as the claimed invention. The prior art can also come from different fields that a

POSITA would have considered when trying to solve the problem that is addressed by the invention.

48. I understand that the existence of each and every limitation of the claimed invention in the prior art does not necessarily prove obviousness. Most, if not all, inventions rely on building blocks of prior art. But, in considering whether a claimed invention is obvious, I understand that one may find obviousness if, at the time of the patent’s alleged invention, there was a reason that would have prompted a POSITA to combine the known elements in a way the claimed invention does, taking into account such factors as (1) whether the claimed invention was merely the predictable result of using prior art elements according to their known function(s); (2) whether the claimed invention provides an obvious solution to a known problem in the relevant field; (3) whether the prior art teaches or suggests the desirability of combining elements claimed in the invention; (4) whether the prior art teaches away from combining elements in the claimed invention; (5) whether it would have been obvious to try the combinations of elements, such as when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions; and (6) whether the change resulted more from design incentives or other market forces.

49. I understand that in order for a claim to be rendered obvious by a combination or modification of prior art, it must be shown that a POSITA would have had a motivation to combine or modify the prior art with a reasonable expectation of success that the combination of prior art would result in the claimed invention.

50. I understand that inherency may be used in an obviousness analysis. I understand that for prior art to inherently disclose a limitation of the claim, the prior art must necessarily include the claim limitation that is not expressly present or disclosed. I understand that inherency may not be established by probabilities or possibilities.

51. In assessing obviousness, I have been instructed to consider both the ordinary creativity and common sense of a POSITA. However, I also understand that it is impermissible to find obviousness based on hindsight reasoning, i.e., combining prior art using the claimed invention as a template, without establishing that, as of the date of the invention, there exists a motivation to combine or apparent reason to combine and/or modify the prior art.

52. I understand secondary considerations include commercial success of a product due to the merits of the claimed invention, unexpected results from the claimed invention, a long-felt need that the claimed invention satisfies, failure of

others to achieve the claimed invention, skepticism for the claimed invention, and copying of the claimed invention.

d. Level of ordinary skill in the art

53. With respect to the ’772 patent, a person of ordinary skill in the art at the time of the invention (which I take to be July 2008) would have at least a bachelor’s degree in electrical engineering, computer science, or a related field, as well as at least 2-3 years of experience with computer networks. A person with less formal education, but more practical experience, may also be of “ordinary skill in the art.”

54. In this case, Dr. Blumenthal has asserted in his declaration that a POSITA at “the claimed priority date of the ’772 patent would have had a . . . B.S. in Electrical Engineering or a related field with at least five years of experience in designing communications systems” and “[m]ore education can supplement practical experience and vice versa.” EX1002, ¶36. Dr. Blumenthal treated “late 2008” as “the relevant time frame” for a POSITA. *Id.* ¶39.

55. In its Decision to Institute Review, the Board adopted Dr. Blumenthal’s definition of a POSITA. Paper 8 (“Inst. Decision”), at 16.

56. I was at the time of invention, and am, one of more than ordinary skill in the art through my background and experience, regardless of whether my

definition of a POSITA or Dr. Blumenthal’s definition of a POSITA is employed.

As of the time of the ’772 Patent discussed above, I was very familiar with the types of problems encountered in manageable electronic devices, the types of prior art solutions described in the prior art references raised in this IPR (IPR2023-00581), and the pace at which innovations were made.

57. Ultimately, as set forth herein, I find the Challenged Claims patentable, regardless of whether my definition of a POSITA or Dr. Blumenthal’s definition of a POSITA is applied.

V. THE ’772 PATENT

58. I have reviewed the ’772 Patent, which is titled “Method and System for Remote Device Management.” The ’772 Patent discloses scalable solutions for management of remote devices (i.e., “manageable electronic devices”). These manageable electronic devices may be “any type of electronic device capable of digital communication,” including “a personal computer, a gateway or router, an electronic appliance such as a set-top box, a television set, an IP based telephone, etc.” that is deployed at a customer’s premises. ’772 Patent at 1:26-33. Among other features, such devices allow for remote management, which “relates to auto-configuration and dynamic service provisioning, software management, status and performance monitoring and diagnostics.” *Id.* at 1:34-37. They also can obtain

service level settings from an auto-configuration server (ACS). *Id.* at 1:42-45.

These settings instruct the manageable electronic devices to operate in the proper fashion on customer premises.

59. As stated in the ’772 Patent, typically an “ACS is dedicated either to a certain level of service (e.g. premium, best effort), a type of device (e.g., Home Gateway, Voice over IP telephone, Set TopBox) or a specific customer group (e.g., business or residential).” *Id.* at 1:46-49. These ACSs can be reachable to the manageable electronic devices over a wide-area network (“WAN”). *Id.* at Fig. 1; 3:64-67.

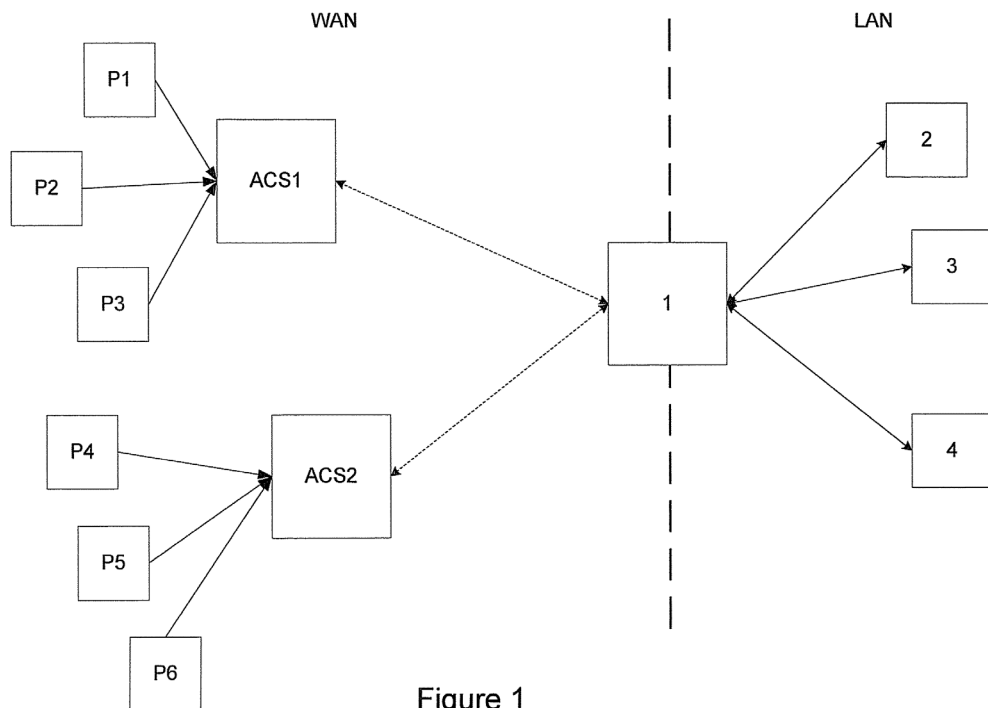


Figure 1

60. Figure 1 of the ’772 Patent, reproduced above, shows an example of such an arrangement in the prior art. *See, e.g., id.* at 3:46-47. In Figure 1, a manageable electronic device 1 connects a local area network (“LAN”) to a WAN. *Id.* at 3:64-67. The LAN communicatively couples devices 2, 3, and 4 (which may also be manageable electronic devices) with manageable electronic device 1. *Id.* at 3:67-4:4. The LAN may be a home network or an office network, but can be distributed over multiple geographic locations. *Id.* at 4:5-9.

61. The WAN may be the Internet. *Id.* at 4:10-13. In this example, the WAN communicatively couples auto-configuration server 1 (ACS1) and auto-configuration server 2 (ACS2) to manageable electronic device 1. *Id.* at 4:22-29, 4:35-39. In Figure 1, for example, ACS1 and ACS2 contain configuration data for manageable electronic device 1 and manageable electronic device 2, respectively. *Id.* at 4:22-29. This auto-configuration data may have been delivered to ACS1 and ACS2 by one or more of provisioning systems P1, P2, P3, P4, P5, and P6. *Id.* at 4:30-32.

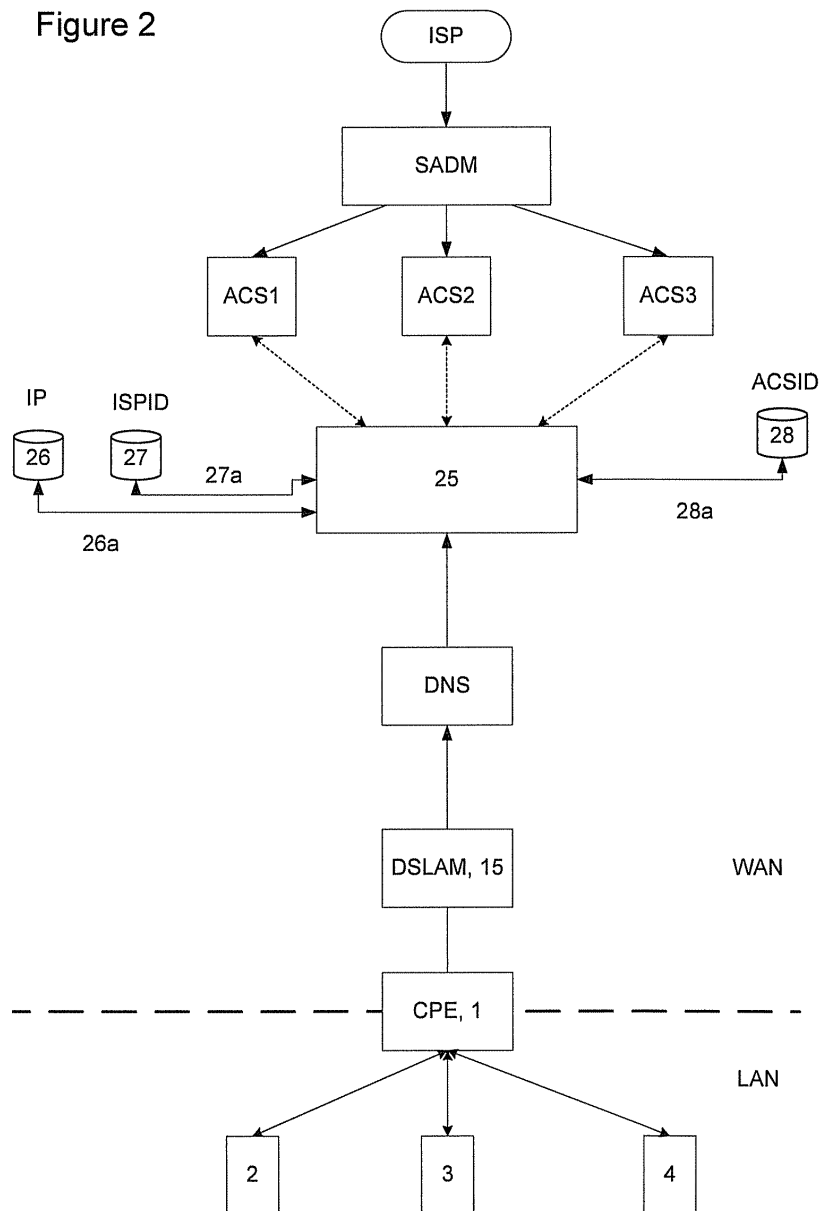
62. A manageable electronic device, (such as manageable electronic devices 1 and 2) may require configuration data from a dedicated auto-configuration server (ACS 1 in the case of manageable electronic device 1 and ACS 2 in the case of manageable electronic device 2). *Id.* at 4:22-29, 40-43. In

order to communicate with the appropriate ACS, in this example, the manageable electronic device is pre-configured, prior to installation in the LAN, with the IP address or URL of the proper ACS. *Id.* at 4:48-50, 4:55-57.

63. The pre-configuring of IP addresses or URLs of ACSs in this example, however, is time consuming and sensitive to errors and mistakes. *Id.* at 1:53-60. Given the large number of manageable electronic devices on various networks (this could reach into the millions) and the time required for pre-configuring, the errors and mistakes that result therefrom have a deleterious impact on the efficient operation of the these devices.

64. The '772 Patent discloses methods, devices, and systems for remote device management that include an auto-configuration server managing device (ACSMD), at least one database, and a plurality of ACSs. *Id.* at Abstract. These components may be communicatively coupled with one another by a network. *Id.* The database holds information for identification of manageable electronic devices. *Id.*

Figure 2



65. Figure 2 of the '772 Patent, reproduced above, shows an example of such an arrangement. *See, e.g., id.* at 4:62-63. Figure 2 uses the same reference numerals as Figure 1 to refer to corresponding entities. *Id.* at 4:64-65. But, Figure 2 also includes, in the WAN, a digital subscriber line access multiplexer (DSLAM)

15, a domain name system (DNS) server, an auto-configuration server managing device (ACSMD) 25, and databases 26, 27, and 28. *Id.* at 4:66-5:3. Further, a service activation device manager (SADM) may provide an Internet service provider (ISP) and/or other entities access to the ACSs. *Id.* at 5:22-26.

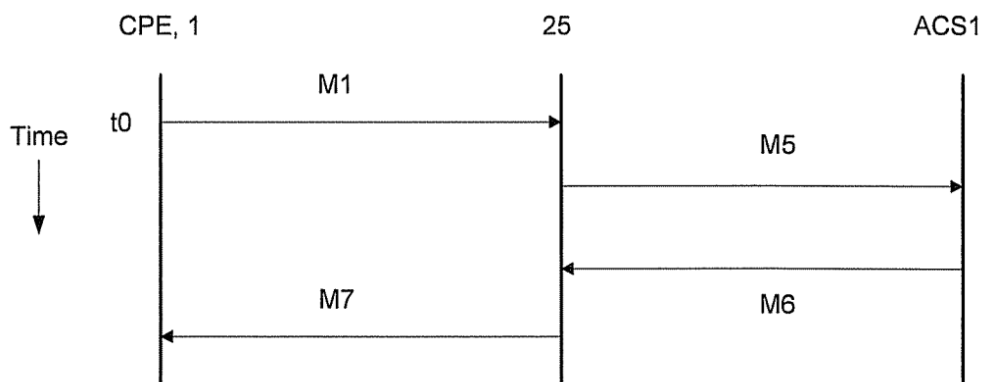
66. In the example of Figure 2, manageable electronic device 1 includes an IP address or URL for the ACSMD 25. *Id.* at 5:51-55. Accordingly, in this embodiment, the manageable electronic device 1 transmits a request for configuration data to ACSMD 25. *Id.* at 5:56-59; *see also* Fig. 5 (M1). In this embodiment, the request includes identifying information of manageable electronic device 1, such as an IP address of manageable electronic device 1. *Id.* at 6:5-6. After receiving the request, ACSMD 25 compares identifying information of manageable electronic device 1 to a database (e.g., database 26). For example, the database may contain IP addresses that are valid for access to ACSMD 25. *Id.* at 6:10-15. In such an embodiment, if the IP address of manageable electronic device 1 matches one of the IP addresses in the database, the auto-configuration process continues; otherwise it terminates. *Id.* at 6:19-24.

67. Next, ACSMD 25 can determine the appropriate ACS, based on identifying information of manageable electronic device 1, by way of a lookup in one or more other databases (e.g., databases 27 and/or 28). *Id.* at 6:29-43. Thus,

an ACS may be selected for auto-configuration based on identifying information of manageable electronic device 1, such as an IP address of manageable electronic device 1. *Id.* In this manner, ACSMD 25 can select an ACS that meets the configuration needs of manageable electronic device 1. *Id.* at 6:52-55.

68. Then, the ACSMD 25 can relay the request to the selected ACS, receive a reply from the ACS containing configuration data for manageable electronic device 1, and relay the reply to manageable electronic device 1. *Id.* at 6:63-7:3, 8:25-31; *see also* Fig 5 (M5, M6, M7, respectively). Manageable electronic device 1 may use the configuration data to configure itself. *Id.* at 8:33-37.

Figure 5



69. Figure 5, reproduced above, shows an example signal flow between manageable electronic device 1, ACSMD 25, and the selected ACS. *Id.* at 3:54-55. In Figure 5, manageable electronic device 1 is represented by line CPE, ACSMD

25 is represented by line 25, and the selected ACS is represented by line ACS1. *Id.* at 7:53-57.

70. In an embodiment, ACSMD 25 relays a first relayed message M5 to the selected ACS, the selected ACS receives the first relayed message M5 and transmits a reply M6 to ACSMD 25, and the ACSMD 25 receives the reply M6 and relays the reply M6 to manageable electronic device 1 as a second relayed message M7. *Id.* at 8:4-31.

71. I understand that during prosecution of the application that issued as the '772 Patent, Patent Owner asserted to the USPTO that "relaying" is a different form of sending a message than merely "forwarding," and submitted the following statement:

One of ordinary skill in the art would, in this case, recognize that *relaying* a request includes the possibility to change, process, or otherwise manage the request, all of which would require that the ACSMD unravel the incoming message to determine what action, if any, is required to be taken. By way of example, an incoming TR-069 message (e.g., a message generated according to the TR-069 protocol) could be translated into UPnP message (e.g., a message generated according to the UPnP protocol) as part of *relaying* the message to its destination. Such a translation is accommodated by an "ACSME ... configured to relay" a request, as recited in claim 1, but could not

occur for a message that is *forwarded*, as is the case for Acke [the cited reference discussing the TR-069 communication protocol].

EX1004, 85-86.

72. I agree with that statement.

73. I understand that during prosecution of the application that issued as the '772 Patent, Patent Owner also made the following statement to the USPTO regarding "forwarding":

As one of ordinary skill in the art would readily understand, *forwarding* session requests and connection requests entails transferring messages from a receiving incoming port of a device to an appropriate transmitting outgoing port of the device, *without changing or processing the messages*. That is, the device, such as a proxy server, does not process or even read the payload of a message that is to be forwarded, but merely reads the message header to determine the correct outgoing port, and then substitutes the previously used header - which will have, e.g., addressed the proxy server since that is where the message was delivered - with a new header indicating the new address, being the address to which the proxy server *forwards* the message.

EX1004, 85.

74. I agree with that statement.

75. I also understand that during prosecution of the application that issued as the '772 Patent, Patent Owner submitted to the USPTO the ServerWatch Tutorial "Back to Basics: The DHCP Relay Agent," which states:

This is because the concepts for Relay and Forwarding are quite different. Forwarding implies that the message is forwarded from one interface to another, without any special processing. Relay implies that the message is processed to a greater extent, which may include changes being made to the original packet.

EX1004, 23, 38-42.

76. I agree with that statement.

77. In any case, these procedures improve over the prior art by eliminating complexities related to pre-configuring manageable electronic devices. Particularly, instead of pre-configuring an IP address or URL of a particular ACS into each device, these devices can be configured with an address of the ACSMD instead. This dramatically reduces complexity and errors inherent in the prior art. Notably, the one address of the ACSMD replaces the multiple addresses of the ACSs, significantly simplifying the configuration of the manageable electronic devices.

VI. THE CHALLENGED CLAIMS

a. Claims 2, 11, 14, and 16

78. I understand that in a different proceeding, Patent Owner disclaimed Claim 1. Claim 2 depended from disclaimed Claim 1, and I understand, therefore, Claim 2 includes the limitations of disclaimed Claim 1. I understand that Claim 2 (rewritten in independent form) recites:

2. A system for remote device management comprising:

- a plurality of auto-configuration servers (ACSs);
- a manageable electronic device;
- an auto-configuration server managing device (ACSMD) for controlling access to the ACSs communicatively coupled intermediately between the plurality of ACSs and the managed electronic device; and

- at least one database communicatively coupled to the ACSMD and storing information for the identification of electronic devices,
- wherein the manageable electronic device is configured to send a request for configuration data to the ACSMD,
- wherein configuration data comprise data for configuring the manageable electronic device, and
- wherein the ACSMD is configured, responsive to receiving the request, to:

- identify the manageable electronic device by comparing at least a portion of the request with the information for the identification of electronic devices of the at least one database, and
- identify an ACS from the plurality of ACSs in accordance with the identification of the manageable electronic device to provide configuration data to the manageable electronic device, and
- wherein the ACSMD is further configured to relay the request to the identified ACS,

wherein the ACSMD is further configured to receive a reply from the identified ACS, and relay the reply to the manageable electronic device.

79. I understand that in a separate proceeding, Patent Owner disclaimed Claims 10, 12, and 15. Claims 11, 14, and 16, depended from disclaimed Claims 10, 12, and 15, respectively, and recite virtually identical claim elements as claim 2. The Petition does not distinguish between Claim 2 and Claims 11, 14, and 16. Instead, the Petition refers to Claim 2 for its arguments against Claims 11, 14, and 16. Pet., 52, 54, 55, (each stating see “claim 2”).

b. Claims 3-6

80. I understand that Claim 3 depended from disclaimed Claim 1, and I understand, therefore, that Claim 3 includes the limitations of disclaimed Claim 1. I understand that Claim 3 (rewritten in independent form) recites:

3. A system for remote device management comprising:
a plurality of auto-configuration servers (ACSs);
a manageable electronic device;
an auto-configuration server managing device (ACSMD) for
controlling access to the ACSs communicatively coupled
intermediately between the plurality of ACSs and the managed
electronic device; and
at least one database communicatively coupled to the ACSM
and storing information for the identification of electronic devices,

wherein the manageable electronic device is configured to send a request for configuration data to the ACSMD,

wherein configuration data comprise data for configuring the manageable electronic device, and

wherein the ACSMD is configured, responsive to receiving the request, to:

identify the manageable electronic device by comparing at least a portion of the request with the information for the identification of electronic devices of the at least one database, and

identify an ACS from the plurality of ACSs in accordance with the identification of the manageable electronic device to provide configuration data to the manageable electronic device, and

wherein the ACSMD is further configured to relay the request to the identified ACS,

wherein the ACSMD is further configured to identify the type of the manageable electronic device by comparing a network address of the manageable electronic device in the request with a predetermined plurality of network addresses in the at least one database

81. I understand that Claims 4-6 depend from Claim 3.

VII. CLAIM CONSTRUCTION

82. I understand that the Board construed claim terms of the '772 Patent when denying a prior petition against the '772 Patent. *Samsung Elecs. Co.*,

IPR2016-00808, Paper 6, at 8-12 (“a request” and “the request”). Further, I understand that the United States District Court for the Eastern District of Texas construed claim terms of the ’772 Patent in a claim construction order in a prior litigation. *Koninklijke KPN N.V. v. Samsung Elecs. Co.*, 2:14-CV-01165-JRG (E.D. Tex. May 6, 2016) (EX1005) (preambles of disclaimed Claims 10, 12, and 15, “manageable electronic device,” “plurality of auto-configuration servers (ACSs),” “auto-configuration server managing device (ACSMD),” “computer,” “processing unit,” “controlling access,” “configuration data,” “configuration data comprises data for configuring the manageable electronic device,” “request for configuration data,” “request from a manageable electronic device for configuration data,” and “relay”).¹ I refer to the prior litigation as the *Samsung* Litigation.

83. I also understand that the Eastern District of Texas in the *Samsung* Litigation adopted Patent Owner’s construction of “relay” from prosecution of the application that led to the ’772 Patent, which differentiated “relay” from “forward” and found “relay” means “change, process, or otherwise manage a request based at

¹ I understand that EX1005 is published on the Westlaw database as 2016 WL 2610649.

least in part on its payload.” EX1005, 60-61 (“The above statement to the Examiner reflects that ‘forwarding’ refers to modifying a message header, ‘relaying’ refers to changing or processing the content of a request or otherwise managing the request based on its payload content.”).

84. I agree with this construction.

85. I further understand that the Eastern District of Texas in the *Samsung Litigation* also construed the term “auto-configuration server managing device (ACSMD)” to require relaying—not forwarding: “hardware and/or software that relays configuration requests to the auto-configuration servers.” *Id.*, 48.

86. I agree with this construction.

87. I understand that KPN and Ericsson are currently involved in parallel litigation, *Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson et al.*, 2:22-CV-00282-JRG (E.D. Tex.), before the same Court as in the *Samsung Litigation*. I refer to the parallel litigation as the *Ericsson Litigation*.

88. I further understand that after the Board’s Decision to Institute Review, the United States District Court for the Eastern District of Texas construed claim terms of the ’772 Patent in a claim construction order in the *Ericsson Litigation*. *Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson et al.*, 2:22-CV-00282-JRG, Dkt. No. 176 (E.D. Tex. Oct. 13, 2023) (EX2012) (“relay,”

“plurality of auto-configuration servers (ACSs),” “ACS,” “controlling access,” preamble of Claim 10, “manageable electronic device,” and “auto-configuration server managing device (ACSMD)”); *Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson et al.*, 2:22-CV-00282-JRG, Dkt. No. 195 (E.D. Tex. Nov. 2, 2023) (EX2013) (adopting EX2012).

89. I also understand that the Eastern District of Texas in the *Ericsson* Litigation construed “relay” to mean “change, process, or otherwise manage a request based at least in part on its payload, and forward.” EX2012, 46.

90. In construing “relay,” I understand that the Eastern District of Texas in *Ericsson* Litigation rejected Petitioner’s proposed construction of “relay” as “send.” *Id.* at 42. Instead, I understand that the Eastern District of Texas in the *Ericsson* Litigation added “and forward” to the end of the Eastern District of Texas’ construction of “relay” in the *Samsung* Litigation. *Id.* at 42-46.

91. In my opinion, the Eastern District of Texas’ construction of “relay” in the *Ericsson* Litigation is similar to the Eastern District of Texas’ construction of “relay” in the *Samsung* Litigation, and both constructions confirm that “relay” is different from “forward” and “send.”

92. Further, in my opinion, the “and forward” in the Eastern District of Texas’ construction of “relay” in the *Ericsson* Litigation was inherent in the Eastern District of Texas’ construction of “relay” in the *Samsung* Litigation.

93. I have interpreted the Challenged Claims in a fashion that is consistent with the following constructions from the U.S. District Court for the Eastern District of Texas in the *Samsung* Litigation and in the *Ericsson* Litigation:

Claim Term	<i>Samsung</i> District Court’s Construction	<i>Ericsson</i> District Court’s Construction
Preamble	limiting (EX1005, 38)	Preamble of Claim 10 is limiting (EX2012, 8)
“manageable electronic device”	“electronic device that can be configured over a network” (EX1005, 42)	
“plurality of auto-configuration servers (ACSs)”	“two or more systems of hardware and/or software, each of which is capable of automatically configuring a manageable electronic device” (EX1005, 46)	“two or more systems of hardware and/or software, each of which is capable of automatically configuring a manageable electronic device” (EX2012, 50)

“ACS”		“a system of hardware and/or software, which is capable of automatically configuring a manageable electronic device” (EX2012, 50)
“auto-configuration server managing device (ACSMD)”	“hardware and/or software that relays configuration requests to the auto-configuration servers” (EX1005, 48)	“hardware and/or software that relays configuration requests to the auto-configuration servers” (EX2012, 8)
“computer” and “processing unit”	“plain meaning” (EX1005, 51)	
“controlling access”	“remaining in contact with the manageable electronic device and the ACS, and controlling whether the manageable electronic device gains access” (EX1005, 54)	“remaining in contact with the manageable electronic device and the ACS, and controlling whether the manageable electronic device gains access”

		(EX2012, 53) ²
“configuration data” and “configuration data comprises data for configuring the manageable electronic device”	“plain meaning” (EX1005, 57)	
“request for configuration data” and	“plain meaning” (EX1005, 59)	

² In the *Ericsson* Litigation, I understand that Petitioner has reserved the right to argue to the jury that the District Court’s construction of “controlling access” requires “constant contact.” EX2014, 90. I also understand that the District Court in the *Ericsson* Litigation found that “any remaining disagreement” between the parties’ regarding the Court’s construction “presents a factual dispute regarding infringement rather than any legal question for claim construction.” EX2012, 53. The Petition relies on Angelot for “controlling access” recited in limitation [1c]. Pet., 27-29 (citing EX1006, ¶¶[0047], [0054]). In my opinion, Petitioner did not assert in the Petition that Angelot discloses that the server 14 is in “constant contact” with the IP phone 12a and the configuration servers via the network 16.

“request from a manageable electronic device for configuration data”		
“relay”	“change, process, or otherwise manage a request based at least in part on its payload.” (EX1005, 61)	“change, process, or otherwise manage a request based at least in part on its payload, and forward.” (EX2012, 46)
“manageable electronic device”		“electronic device that can be configured over a network” (EX2012, 8)

94. To the extent that the District Court in the *Samsung* Litigation or in the *Ericsson* Litigation has not provided a claim construction for a particular claim term or element, I used the ordinary and customary meaning of the words, as would be understood by a person of ordinary skill in the art in the context of the field of the invention at the time of the invention, to construe such a claim term or element.

95. Ultimately, as set forth herein, I find the Challenged Claims patentable, regardless of whether the ordinary and customary meaning or the

construction of the District Court in the *Samsung* Litigation or in the *Ericsson* Litigation is applied.

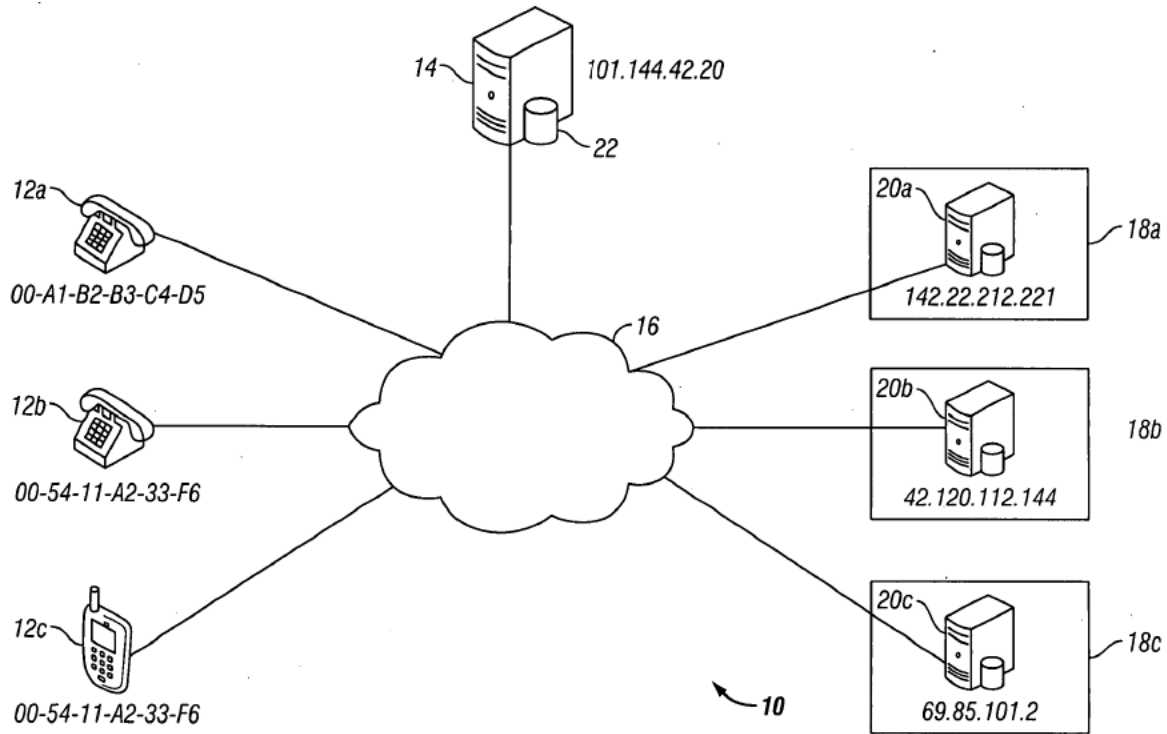
VIII. ANALYSIS OF THE REFERENCES

a. Angelot

96. Petitioner has cited Angelot against all of the Challenged Claims.

97. As set forth in the Abstract of Angelot, Angelot discloses a “A system for configuring a plurality of network entities by a central server, each of the network entities being associated with a unique identifier, and each of the network entities being associated with at least one service provider having configuration settings data therefor.” EX1006, Abstract.

98. Angelot’s disclosure includes a number of different embodiments. *Id.*, ¶[0034] (“Several preferred embodiments of the present invention will now be described, by way of example only, with reference to the appended drawings.”).



99. Figure 1, reproduced above, illustrates one embodiment of the system. *Id.*, ¶[0035] (disclosing “a preferred embodiment”).

100. I understand that, as shown in Figure 1, the system in this embodiment for configuring network entities associated with service providers includes network entities 12a, 12b, and 12c (e.g., IP phones) that “send a request for configuration settings” to a “central server 14.” *Id.*, ¶[0046].

101. “[T]he central server 14” then “forwards [the] query to the appropriate configuration server.” *Id.*, ¶[0047]. In this way, according to this embodiment of Angelot, “configuration settings are provided to the network entity 12a, 12b, or 12c,

and so each of the network entities 12a, 12b, or 12c is automatically configured."

Id.

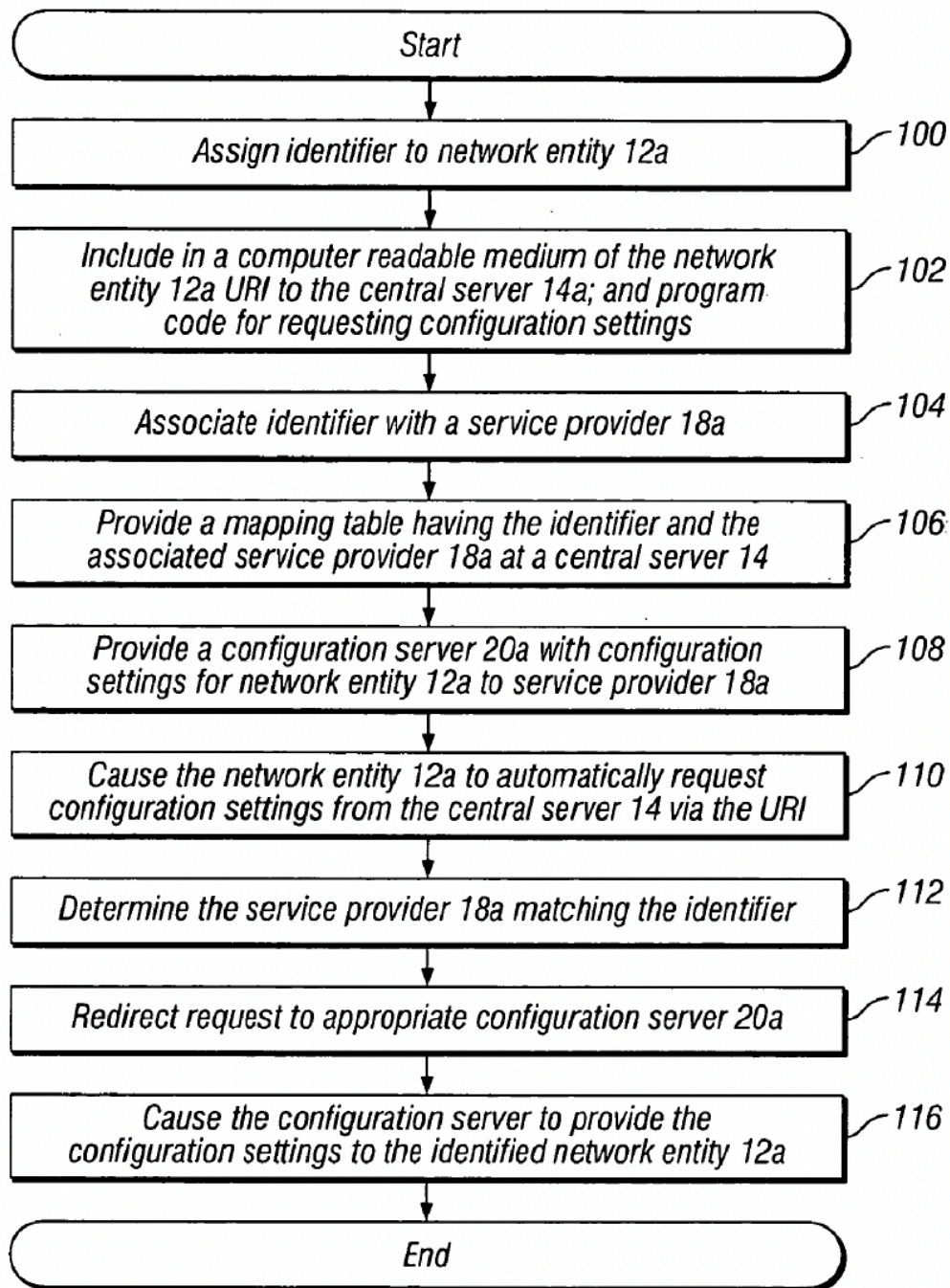


FIG. 2

102. I have reproduced Figure 2 of Angelot above, which, according to Angelot, “is a flowchart outlining exemplary steps in a method for configuring an IP device.” *Id.*, ¶[0036].

103. According to Angelot, with reference to Fig. 2, “a request for configuration settings from the IP phone 12 a” can include “identity data of the IP phone 12 a, such as the unique MAC address.” *Id.*, ¶[0054]. “As part of the provisioning process the MAC address of the IP phone 12a, is associated with at least [one] of the service providers 18a, 18b, or 18c (step 104 [Fig. 2]), at the central server 14.” *Id.*, ¶[0051].

104. According to Angelot, the central server 14 “[p]referably” includes “a database 22 for storing the records of the MAC addresses and the associated service provider 18a, 18b, or 18c, such as a first mapping table which is maintained in a memory associated with the central server 14 (step 106), as shown in FIG. 3a.” *Id.*

IP Device MAC address	00-A1-B2-B3-C4-D5	00-54-11-A2-33-F6	00-54-11-A2-33-F6		XX-XX-XX-XX-XX
SERVICE PROVIDER ID	SP 18a	SP 18b	SP 18c		SP 18x
Configuration server(s) (IP address)	142.22.212.221 100.232.2.214 72.12.15.32 120.200.45.255 222.48.25.66	42.120.112.144 144.110.212.20	69.85.101.2		yy.yyy.y.yyy

FIG. 3a

105. I have reproduced Figure 3a of Angelot above, which, according to Angelot, “is an exemplary first mapping table comprising IP device information and associated service provider.” *Id.*, ¶[0037].

106. As Angelot discloses in this embodiment, upon receipt of the request by the central server, “the central server 14 processes the request to determine whether the first mapping table comprises the unique MAC address associated with the request, and also determines which of the plurality of service providers 18a, 18b, 18c the MAC address belongs to.” *Id.*, ¶[0054].

107. Angelot then states that “the central server 14 then redirects the request to an appropriate service provider 18a, 18b or 18c, as per first mapping table (step 114).” *Id.*

108. As indicated in step 116 of the embodiment in Figure 2, “a configuration server 20a, 20b or 20c, associated with the appropriate service provider 20a, 20b or 20c, selects the configuration settings for the IP phone 12a with that specific MAC address as per second mapping table, and forwards the relevant configuration settings data to the IP phone 12a.” *Id.*

109. I note that Angelot contains a typographical error in the above-quoted sentence. The reference numerals in the phrase “the appropriate service provider

20a, 20b or 20c” in the sentence should read “18a, 18b or 18c.” *See, e.g., id.*, Fig.

3a.

110. I note that paragraphs [0043]-[0054] of Angelot appear to discuss the embodiment of Angelot shown in Figures 1 and 2. That embodiment discusses a configuration server, which Petitioner appears to map to an ACS in the Challenged Claims. *See Pet.*, 45. That embodiment also discusses a central server 14, which Petitioner appears to map to the ACSMD in the Challenged Claims. *See Pet.*, 45.

111. In that embodiment, the configuration server “forwards the relevant configuration settings data to the IP phone 12a.” EX1006, ¶[0054]. In my opinion, in this embodiment, the configuration server neither “relays” the configuration settings nor sends the settings in any manner to the central server 14 to send to the IP phone 12a. Rather, the configuration server sends the settings directly to the phone.

112. Angelot discloses several other embodiments in paragraphs [0055]-[0063]. In my opinion, Angelot expressly clarifies that each such embodiment is a separate embodiment from the embodiment discussed in paragraphs [0043]-[0054].

113. In particular, Angelot describes the paragraph [0055] embodiment as “another exemplary embodiment”; Angelot describes the paragraph [0056] embodiment as “yet another exemplary embodiment”; Angelot describes the paragraph [0057] embodiment as “yet another exemplary embodiment”; Angelot

describes the paragraph [0058] embodiment as “yet another exemplary embodiment”; Angelot describes the paragraph [0059] embodiment as “yet another exemplary embodiment”; Angelot describes the paragraph [0060] embodiment as “yet another exemplary embodiment”; Angelot describes the paragraph [0061] embodiment as “yet another exemplary embodiment”; Angelot describes the paragraph [0062] embodiment as “yet another exemplary embodiment”; and Angelot describes the paragraph [0063] embodiment as “yet another exemplary embodiment.”

114. I understand that Petitioner cites one of those embodiments (*see* Pet., 32-33) for the concept of the server 14 acting as “a proxy or intermediary, by communicating with one of the configuration servers 20a, 20b or 20c to directly request and acquire the configuration settings data, and then forwarding the configuration setting data to the network entity 12a.” EX1006, ¶[0062].

115. In my opinion, however, that embodiment does not disclose why the server 14 would make such a request. Further, in my opinion, if that request were not actually made “directly” from the server, that embodiment does not disclose where such a request would have come from.

116. Angelot does not refer to “relay” even once.

117. In my opinion, Angelot uses the terms “redirect” and “forward” interchangeably. For example, in the embodiment disclosed in Figures 1-2 and paragraphs [0043]-[0054], Angelot states:

Alternatively, the central server 14 *forwards* the query to the appropriate configuration server 20a, 20b, 20c based on the identity of the network entity 12a, 12b, or 12c. As such, the central server 14 *redirects* any configuration related queries from the network entity 12a, 12b, or 12c to the configuration server 20a, 20b, 20c, therefore the central server 14 may be also be termed a "*redirect* server".
EX1006, ¶[0047] (emphasis added).

118. As another example, in the embodiment disclosed in paragraph [0062], Angelot states:

In yet another exemplary embodiment, the *redirect* server 14 serves as a proxy or intermediary, by communicating with one of the configuration servers 20a, 20b or 20c to directly request and acquire the configuration settings data, and then *forwarding* the configuration setting data to the network entity 12a.
EX1006, ¶[0062] (emphasis added).

119. Neither “forwarding” a message nor “redirecting” a message are “relaying” a message, however. *Supra* ¶¶ 71-76 (discussing the differences between “forwarding” and “relaying” in the prosecution history).

120. In fact, I understand that, in an Office Action in U.S. Patent Application No. 14/938,056 (now U.S. Patent No. 9,838,256 (“the ‘256 Patent”), a child of the ’772 Patent), a USPTO Examiner found that Angelot does not disclose “the auto-configuration server manager further being arranged for . . . relaying the request to the identified auto-configuration server.” EX1019, 42.

121. This claim language is similar to the language of Claim 2 of the ’772 patent: “wherein the ACSMD is further configured to relay the request to the identified ACS”. EX1001, 10:9-11. Petitioner appears to agree with me: Petitioner characterizes the ’256 Patent as having “nearly identical claims” to the ’772 Patent and “substantially similar claims to those at issue here.” Pet., 19.

122. I agree with the finding of the Examiner that Angelot does not disclose “the auto-configuration server manager further being arranged for . . . relaying the request to the identified auto-configuration server.” I also find that Angelot does not disclose “wherein the ACSMD is further configured to relay the request to the identified ACS.”

b. Zakurdaev

123. I understand that Petitioner combines Angelot with Zakurdaev in Ground 3. Pet., 67; EX1007. As recited in the Abstract of Zakurdaev, Zakurdaev discloses a relay server that forwards IP address requests to ISPs: “A Smart DHCP

Relay server is formed for receiving all IP address requests, to determine the ISP to which the request should be forwarded, and then to forward the request to the ISP.”

EX1007, Abstract.³ Further, according to Zakurdaev:

ISP equipment responds, upon receiving the forwarded request, and generates an IP address for delivery to the user terminal that generated the request. The user terminal, upon receiving the one response, automatically loads the IP address for use whenever access to the Internet by way of the ISP equipment is desired.

Id. ¶[0012].

124. In my opinion, Zakurdaev does not disclose the operation of “relaying” a request or reply.

IX. GROUND 1: ANGELOT DOES NOT ANTICIPATE THE CHALLENGED CLAIMS

125. Petitioner has contended that Angelot anticipates the Challenged Claims. It is my opinion, however, that Angelot does not anticipate any of these claims.

³ DHCP is the abbreviation for Dynamic Host Configuration Protocol.

EX1012, 1.

- a. Angelot does not disclose “wherein the ACSMD is further configured to identify the type of the manageable electronic device by comparing a network address of the manageable electronic device in the request with a predetermined plurality of network addresses in the at least one database” recited in Claim 3**

126. I understand that Claim 3 requires that the ACSMD be configured to identify the type of the manageable electronic device by comparing a network address of that device with network addresses in a database. I further understand that the ’772 Patent identifies an IP address as an example of a network address. For example:

In the local area network LAN and the wide area network WAN, electronic devices are arranged to have an address for identification on the respective network (i.e., communication is address based). A well known address scheme is the Internet Protocol address system that provides a so-called IP address to each electronic device coupled to the network. The methods for an electronic device to obtain an IP address for identification are known in the art.

EX1001, 4:14-21; Fig. 3b. This is consistent with well-known network architecture models, in which a network layer (e.g., characterized by IP addressable devices) is distinct from a link layer (e.g., a medium access layer with devices identified according to MAC addresses).

127. I understand that Petitioner claims that Angelot discloses Claim 3 by alleging that the MAC address used in Angelot is a “network address.” Pet., 46-

48. I understand that Petitioner further alleges that because in Angelot the MAC address can identify the manufacturer of the network entity, Angelot somehow discloses that the ACSMD is configured to identify the type of the manageable electronic device. *Id.* Both of Petitioner’s claims are incorrect.

128. A POSITA would have known that the MAC address in Angelot is at most a link layer identifier unique to a device. Angelot itself confirms that a MAC address identifies and is specific to hardware, such as an IP phone 12, and is not a network address. As set forth in paragraph [0049] of Angelot:

An exemplary method for configuring the IP phone 12 comprises the step(s) of assigning an identifier to the IP phone 12a, the identifier may be a unique identifier, or a class identifier. One form of unique identification is provided by a globally unique network interface identifier (media access control (MAC) address). The unique MAC address is assigned to the IP phone 12a by the manufacturer or the network equipment provider (step 100). The MAC address is associated with the IP phone 12a's network interface adapter for coupling to the network 16, and includes an encoding comprising six groups of two hexadecimal digits, for example 00-a1-b2-b3-c4-d5.

EX1006, ¶[0049].

129. In reviewing Dr. Blumenthal’s declaration, I also find that Dr. Blumenthal provides no support for Petitioner’s position that the MAC address as

used in Angelot is a network address, other than citing various paragraphs of Angelot that simply refer to a device’s MAC address. EX1002, ¶¶[0137]-[0140].

130. Angelot discusses that a MAC address can be used to identify the manufacturer of a network device or a “class of device” of that network device. EX1006, ¶[0059]; *see also* Pet., 46-48. Angelot nowhere, however, discloses that the MAC address can be used to identify the “type” of network device.

131. In my opinion, identifying a manufacturer of a device is not identifying a type of device. Angelot merely clarifies that “class of device” refers only to whether certain devices are for personal use or work (i.e., “enterprise” devices or “consumer devices”). EX1006, ¶[0059]. Dr. Blumenthal correctly confirms this point. EX1002, ¶140 (opining that Angelot discloses “class of device 12 (whether the manageable electronic device is from manufacturer A or C”).

132. In its Decision to Institute Review, the Board agreed with Patent Owner that “identifying a manufacturer of the network entity, as disclosed in Angelot, is ‘not identifying a type of device.’” Inst. Decision, 25. In this regard, the Board stated:

Patent Owner argues that identifying a manufacturer of the network entity, as disclosed in Angelot, is ‘not identifying a type of device.’ Prelim. Resp. 51-51 (citing Ex. 2001 ¶148). On this record, we agree with Patent Owner. Petitioner does not explain specifically how

identifying the manufacturer of a network entity discloses identifying the type of network entity. *See* Pet. 46-48. Further, the ’772 patent appears to indicate that the manufacturer of a device is different than the type of device. *See, e.g.*, Ex. 1001, 7:21-26 (‘an identification of the type . . . of the manageable electronic device and optionally additional identification, for example the identity of the supplier/manufacturer of the device.’).

Id. at 25.

133. In making its findings in the Institution Decision regarding identifying a manufacturer of the network entity, as disclosed in Angelot, is not identifying a type of device, the Board cited ¶148 of EX2001, which is my first declaration submitted in the IPR. *Id.* at 25 (citing EX2001, ¶148).

134. I agree with the Board’s findings in the Institution Decision regarding identifying a manufacturer of the network entity, as disclosed in Angelot, is not identifying a type of device.

135. Paragraph 131 of this Declaration repeats my testimony at EX2001, ¶148, which the Board cited in the Institution Decision.

b. Angelot uses the terms “forward” and “redirect” interchangeably and never refers to “relay” even once

136. Claims 2 and 3 each recite that “the ACSMD is further configured to relay the request to the identified ACS”—identified by the Petition as limitation [1h], and Claim 2 also recites “the ACSMD is further configured to receive a reply

from the identified ACS, and relay the reply to the manageable electronic device.”

Both claim limitations recite that the ACSMD “relay” a request or reply.

137. Angelot never discloses sending a message via relaying. At most, Angelot discloses that a central server may “redirect” or “forward” configuration settings. This is not “relaying” a message, however. *Supra* ¶¶71-76. (discussing the differences between “forwarding” and “relaying” in the prosecution history of the ’772 Patent); *supra* ¶83 (discussing the Eastern District of Texas in the *Samsung* Litigation adopting Patent Owner’s construction of “relay” from prosecution of the application that led to the ’772 Patent, which differentiated “relay” from “forward”); *supra* ¶¶ 117-118 (discussing Angelot using the terms “redirect” and “forward” interchangeably).

138. The U.S. District Court for the Eastern District of Texas in the *Samsung* Litigation adopted Patent Owner’s construction of “relay” from prosecution of the ’772 Patent, which differentiated “relay” from “forward” and found “relay” means “change, process, or otherwise manage a request based at least in part on its payload.” EX1005, 60-61 (citing EX1004, 85-86). The *Samsung* Court also construed the term “auto-configuration server managing device (ACSMD)” to require relaying—not forwarding: “hardware and/or software that relays configuration requests to the auto-configuration servers.” *Id.*, 48. In

my opinion, these claim interpretations in the *Samsung* Litigation further support that Angelot never discloses sending a message via relaying.

139. Further, the Eastern District of Texas in the *Ericsson* Litigation found “relay” means “change, process, or otherwise manage a request based at least in part on its payload, and forward.” EX2012, 46. The *Ericsson* Court also construed the term “auto-configuration server managing device (ACSMD)” to require relaying—not forwarding: “hardware and/or software that relays configuration requests to the auto-configuration servers.” *Id.*, 8. In my opinion, these claim interpretations in the *Ericsson* Litigation further support that Angelot never discloses sending a message via relaying.

140. In my opinion, Petitioner’s and Dr. Blumenthal’s allegations that Angelot’s discussions of “forwarding” or “redirecting” are the same as “relaying” are completely unsupported. *See* Pet. 38-46; EX1002, ¶¶127-136. For example, Angelot states the following (all of which Petitioner cited (*see* Pet., 39-42 (emphasis added)):

- the “server [ACSMD] **redirect[s]** the request to an appropriate configuration server having the configuration settings data specific to the identifier.” ([EX1006], ¶19.)
- “[T]he request [is] **redirected** to an appropriate configuration server based on the identifier, the configuration server having configuration

settings data associated with the identifier and specific to the network entity.” (*Id.*, ¶25.)

- The “server 14 **redirects** any configuration related queries from the network entity 12a, 12b, or 12c to the configuration server 20a, 20b, 20c.” (*Id.*, ¶47.)
- “The configuration servers 20a, 20b, 20c are coupled to the central server 14a, such that queries for configuration settings may be **redirected** thereto based on the first mapping table.” (*Id.*, ¶52 (emphasis added).)
- “[T]he **redirect** server 14 serves as a proxy or intermediary, by communicating with one of the configuration servers 20a, 20b or 20c to directly request and acquire the configuration settings data...” (*Id.*, ¶62.)
- “The request is subsequently **forwarded** to ... configuration server 20b which selects the appropriate configuration settings for the IP phone 12b using the second mapping table...” (EX1006, ¶55.)

None of those passages disclose, teach, or suggest “relaying,” however, and only disclose forwarding or redirecting.

141. Petitioner and Dr. Blumenthal ignore the meaning of the term “relay” and mischaracterize Angelot’s disclosures related to “redirecting” and “forwarding” as “relaying.” *See* Pet. 38-46; EX1002, ¶¶127-136. For example, under the proper interpretation of the term “relay,” the following statements are completely unsupported:

- “As shown in step 114 of Fig. 2, the server 14 (ACSMD) redirects (**relays**) the request for configuration settings (the request) to the configuration server

20a corresponding to the requesting phone 12a (the request is *relayed* to the identified ACS).” Pet., 38-39 (emphasis added).

- “Thus, the server 14 ‘*relays*’ the phone 12a’s request to the configuration server (identified ACS) identified in the first mapping table.” Pet., 40 (emphasis added).
- “The same is true for IP phone 12a’s request being *relayed* to configuration server 20a by the central server 14.” Pet., 42 (emphasis added).

c. Angelot’s use of “process” in paragraph [0054] does not support Petitioner

i. Paragraph [0054] of Angelot does not disclose “relay”

142. I understand that Petitioner also claims that paragraph [0054] of Angelot discloses “relaying” as understood by the Eastern District of Texas based on that paragraph’s use of the term “process.” Pet., 40-41. But the Eastern District of Texas’s definition of “relay” in both the *Samsung* Litigation and the *Ericsson* Litigation requires more than “process.” The full constructions, as related to “process,” is to “process . . . a request based at least in part on its payload.” EX1005, 60-61; EX2012, 46.

143. Paragraph [0054] of Angelot never refers to or discloses “payload” or processing based on payload. Paragraph [0054] merely describes “forwarding” based on the address of the device sending the message and a mapping of that address in a mapping table “maintained in a memory associated with the central server 14.” EX1006, ¶[0051]. As recited in paragraph [0054]:

In step 112, the central server 14 receives a request for configuration settings from the IP phone 12a. The request includes the identity data of the IP phone 12a, such as the unique MAC address. Upon receipt of the request, the central server 14 processes the request to determine whether the first mapping table comprises the unique MAC address associated with the request, and also determines which of the plurality of service providers 18a, 18b, 18c the MAC address belongs to. Once such a determination has been established, the central server 14 then *redirects* the request to an appropriate service provider 18a, 18b or 18c, as per first mapping table (step 114).

EX1006, ¶[0054] (emphasis added).

144. In its Decision to Institute Review, the Board found that “Angelot discloses that the central service ‘processes’ the request based on the MAC address ‘include[d]’ in the payload of the request.” Inst. Decision, 21 (citing EX1006, ¶[0054]) (alteration in the original)). I disagree with the Board’s finding.

145. Petitioner did not offer the Board’s interpretation of Angelot in the Petition: “the MAC address ‘include[d]’ in the payload of the request.” *Compare* Inst. Decision, 21, *with* Pet., 44, 59.

146. Further, in my opinion, Angelot’s statement that “[t]he request includes the identity data of the IP phone 12a, such as the unique MAC address,” EX1006, ¶[0054], is not a disclosure of that the MAC address is in the payload of the request. Again, Angelot never refers to or discloses “payload.” *Supra* ¶143.

ii. Paragraph [0054] of Angelot does not disclose both limitation [1g] and limitation [1h], which are recited in the Challenged Claims

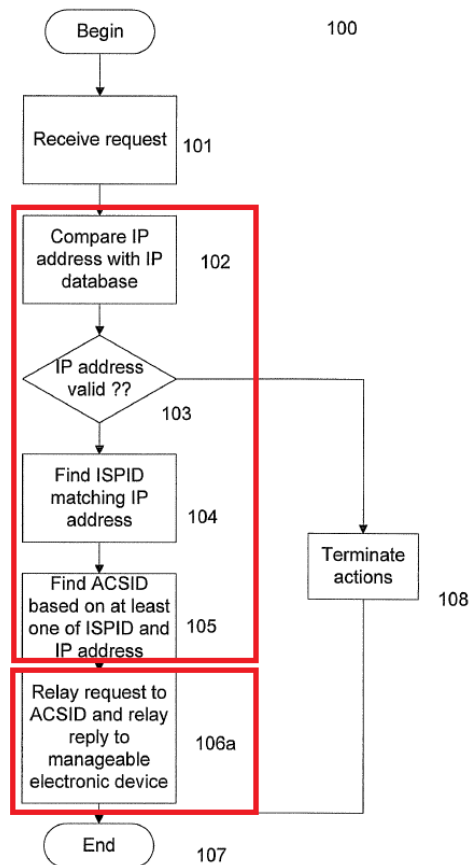
147. I understand that Petitioner has mapped Angelot’s description of “the central server 14 processes the request” in paragraph [0054] to both “wherein the ACSMD is configured, responsive to receiving the request, to: . . . identify the manageable electronic device by comparing at least a portion of the request with the information for identification of electronic devices of the at least one database”—identified by the Petition as part of limitation [1g], and “wherein the ACSMD is further configured to relay the request to the identified ACS”—identified by the Petition as limitation [1h]. Pet. 34-36, 38-42. The Board’s Decision to Institute Review confirms that Petitioner is relying on the same processing in Angelot as disclosing these two different limitations. Inst. Decision, 20 (noting “Petitioner presents evidence that Angelot’s central server identifies the network entity by comparing a MAC address in the request with MAC addresses in the database” for limitation [1g], and “Petitioner presents evidence that Angelot’s central server processes the request based on the MAC address included therein and sends the request to the appropriate configuration server” for limitation [1h]).

148. But the same disclosure of Angelot—Angelot’s description of “the central server 14 processes the request” in paragraph [0054]—cannot meet both

limitations [1g] and [1h]. First, “wherein the ACSMD is configured, responsive to receiving the request, to: identify the manageable electronic device by comparing at least a portion of the request with the information for identification of electronic devices of the at least one database” in limitation [1g] and “wherein the ACSMD is further configured to relay the request to the identified ACS” in limitation [1h] are different limitations and are recited separately in Claim 1. Indeed, [1g] recites “the ACSMD is configured to” and [1h] recites “the ACSMD is *further* configured to,” which indicates these limitations are different.

149. Further, the specification of the ’772 Patent confirms that the ACSMD (i) identifying the manageable electronic device and the ACS and (ii) relaying the request are separate and different. In my opinion, Figures 3b and 5 of the ’772 Patent teach that identifying the manageable electronic device and the ACS is distinct from relaying the request.

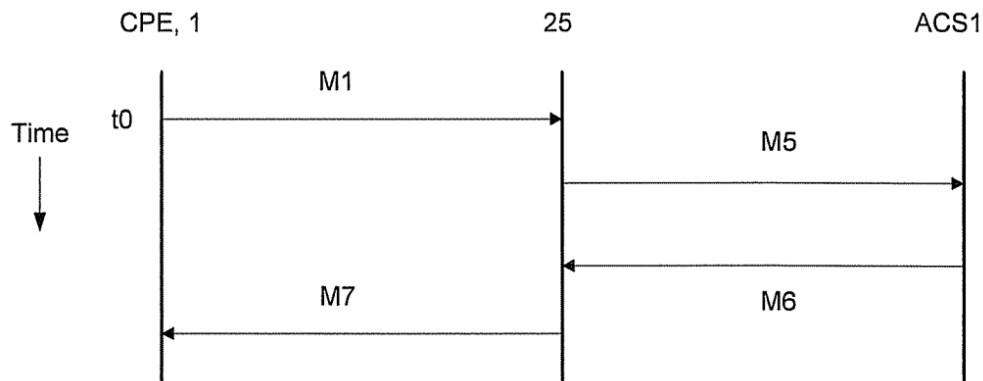
Figure 3b



150. Figure 3b of the '772 Patent, reproduced above (annotations added to 102-105 and 106a), shows an example flow diagram of an “alternative embodiment” of method 100 (where “alternative” is with respect to a different embodiment illustrated in Figure 3a). EX1001, 6:63. In actions 102-105, ACSMD 25 (i) compares the received IP address of manageable electronic device 1 with a first database 26, and (ii) resolves an IP address ACSID of the selected ACS. *Id.* 6:10-51. Then, after actions 102-105, in action 106a, ACSMD 25 relays the

request from manageable electronic device 1 to the selected ACS, and relays the reply from selected ACS to manageable electronic device 1. *Id.* 6:63-7:3.

Figure 5



151. Figure 5 of the '772 Patent, reproduced again above, shows an example signal flow between in manageable electronic device 1, ACSMD 25, and selected ACS in which ACSMD 25 relays first relayed message M5 to the selected ACS, and the ACSMD 25 relays the reply M6 to manageable electronic device 1 as a second relayed message M7. *Supra* ¶69.

152. The '772 Patent teaches that actions 102-105 related to identifying the manageable electronic device are separate and distinct from action 106a related to the ACSMD relaying the request.

153. Accordingly, the '772 Patent teaches that processing that occurs in actions 102-105 related to identifying the manageable electronic device is separate and distinct from processing that occurs in action 106b related to the ACSMD

relaying the request. The separate and distinct processing in actions 102 and 106b is supported by the ’772 Patent teaching that two other actions (actions 104 and 105) occur between actions 102 and 106b.

154. For at least the reasons that limitations [1g] and [1h] are two different limitations that are recited separately, and that the ’772 Patent confirms that identifying the manageable electronic device and the ACSMD relaying the request are separate and different, Angelot’s disclosure that “the central server 14 processes the request” in paragraph [0054] cannot be interpreted as corresponding to both limitations [1g] and [1h].

155. Put another way, if Angelot’s teaching of “the central server 14 processes the request” in paragraph [0054] is mapped to [1g], then it cannot also be mapped to processing in [1h] that is required by the District Court’s construction of “relaying” in both the *Samsung* Litigation and *Ericsson* Litigation: “change, *process*, or otherwise manage a request based at least in part on its payload.” EX1005, 60-61; EX2012, 46 (emphasis added.) Nor is there is any other teaching or disclosure of “processing” in Angelot that could be mapped to [1h]. Angelot’s one and only teaching of “processing” the request, found only in paragraph [0054], cannot be mapped to distinct processing in two different limitations of Claim 2.

d. Angelot does not disclose “wherein the ACSMD is further configured to receive a reply from the identified ACS, and relay the reply to the manageable electronic device” recited in Claim 2

156. I understand that Petitioner’s anticipation argument relies on Angelot, and with respect to the elements in the Challenged Claims found in Claim 1, Petitioner’s anticipation argument relies on the embodiment disclosed in paragraphs [0043]-[0054] of Angelot. Pet., 20-42 (limitations [1pre]-[1h]). Claim 2, however, recites the additional limitation: “wherein the ACSMD is further configured to receive a reply from the identified ACS, and relay the reply to the manageable electronic device.” Here, Petitioner does not appear to allege this disclosure in the embodiment of paragraphs [0043]-[0054] alone, but instead relies on a different embodiment disclosed in paragraph [0062] to fill in the gaps for what Angelot plainly fails to teach in any single, disclosed embodiment.

157. I previously testified in EX2002 how Petitioner’s anticipation argument against Claim 2 mixes and matches different embodiments of Angelot in an apparent attempt to show that Claim 2 is disclosed. I reiterate that testimony below. But I first emphasize that Petitioner’s reliance on the embodiment of paragraphs [0043]-[0054] rests on an erroneous analysis of Angelot’s disclosure, particularly paragraph [0052]. As such, even allowing, *arguendo*, for mixing and matching of disparate embodiments of Angelot, Petitioner’s argument that Claim 2 is anticipated is wrong.

And for similar reasons, as discussed below, Claim 2 is also not obvious over Angelot alone or in combination with Zakurdaev.

i. Angelot does not disclose forwarding anything to an IP phone based on MAC address

158. In its reliance on paragraph [0062] to assert that Angelot anticipates Claim 2, Petitioner alleges:

[T]he server 14 (ACSMD) serves as an “intermediary” and communicates “with one of the configuration servers 20a... to directly request and *acquire* the configuration settings data, and then *forwarding* the configuration setting data to the network entity 12a.” (Ex. 1006, ¶62.)

Pet., 43 (some emphasis in original removed).

159. Petitioner then openly cites both the paragraphs [0043]-[0054] embodiment and the paragraph [0062] embodiment in the same citation, alleging:

Specifically, the configuration setting data (reply) from the identified configuration server 20a is (1) acquired by the server 14 from the configuration server 20a and then (2) “*provided to the IP phone 12a based on the MAC address.*” (*Id.* ¶¶52, 62. (emphasis added).)

Pet., 44. Petitioner’s citation of paragraph [0062] appears to apply to Petitioner’s point (1), because the embodiment of paragraphs [0043]-[0054] fails to disclose, teach, or suggest anything about the server 14 receiving or acquiring configuration

settings from a configuration server or forwarding configuration settings to an IP phone.

160. Petitioner’s citation of paragraph [0052] appears to apply to Petitioner’s point (2), magically transforming the “forwarding the configuration setting data to the network entity 12a” of paragraph [0062] into *the server 14* providing the configuration setting data “to the IP phone 12a based on the MAC address.” But paragraph [0052] in Angelot does not disclose, teach, or suggest the server 14 doing anything with configuration setting data based on MAC address of the IP phone, even allowing, *arguendo*, for Petitioner’s reliance on the paragraph [0062] embodiment in which the server 14 acquires the configuration setting data from a configuration server.

161. In paragraph [0052], Angelot teaches “[t]he configuration servers 20a, 20b, 20c are coupled to the central server 14a, such that queries for configuration settings may be redirected thereto based on the *first* mapping table.” EX1006, ¶[0052] (emphasis added.) As described in paragraph [00052] (and elsewhere in Angelot), the first mapping table serves only for forwarding a device’s “request” received at the central server 14 *from* the central server 14 *to* one or more configuration servers 20a, 20b, 20c, based on the MAC address of the device that issued the “request.” Angelot does not teach that the first mapping table provides

any information that could be used by the central server 14 to forward “configuration data” received at the central server 14 (e.g., acquired from a configuration server 20a, 20b, or 20c, as Petitioner relied on paragraph [0062] as teaching) to IP phone 12a to which the configuration data applies—not based on the MAC address or any other disclosed step. EX1006, ¶¶ [0052], [0054]. The first mapping table provides only a *one-way mapping*.

162. Further, paragraph [0052] of Angelot does not disclose, teach, or suggest anything about the configuration server 20a, 20b, or 20c sending the configuration settings to either the IP phone 12a associated with the MAC address or the central server 14. This may explain why Petitioner relied on paragraph [0062] of Angelot for Ground 1.

163. Rather, paragraph [0052] teaches that a configuration server has a “*second* mapping table” (Fig. 3b) that associates a MAC address with configuration settings for the device associated with the MAC address:

The configuration server 20a, 20b or 20c includes configuration settings specific to the IP phone 12a with specific MAC addresses. Each service provider 18a, 18b or 18c thus includes *a second mapping table* with MAC addresses and associated configuration settings data in a database associated with each of the configuration servers 20a, 20b or 20c.

EX1006, ¶[0052] (emphasis added). The configuration server uses the second mapping table as a look-up to determine the appropriate settings. *Id.*

164. The MAC address in the second mapping table does not provide any information about how to forward anything to an IP phone or any other device. As Angelot discloses:

The *configuration settings [in the second mapping table]* may include phone specific configuration information, and platform specific configuration information, such as, but not limited to, the type of phone, carrier, service, or enterprise system information, ...

Firmware upgrades/downgrades may also be provided to the IP phone 12a based on the MAC address.

EX1006, ¶[0052] (emphasis added). Thus, properly understood in the context of paragraph [0052], the phrase “provide to the IP phone 12a based on the MAC address” refers to the *configuration server* determining from the *second* mapping table—based on a MAC address look-up—“[f]irmware upgrades/downgrades” that may be provided (though no step for doing so is disclosed) to the IP phone associated with MAC address. The phrase does not refer to forwarding—based on MAC address—anything to the IP phone.

165. And, in any case, the second mapping table is consulted by the configuration server, and not the central server 14. Thus, aside from the second table providing no information for forwarding, Angelot does not teach in paragraph

[0052] that the central server ever accesses or consults the second table. Thus, even if the second mapping table was assumed, *arguendo*, to include MAC-based forwarding information, it is not available to the central server 14 for forwarding anything to the IP phone.

166. Petitioner’s erroneous analysis and use of Angelot’s paragraph [0052] renders Petitioner’s point (2) of the allegation on page 44 of the Petition meaningless in connection with Petitioner’s unsupported conjecture of how the server 14 may forward configuration data to an IP phone. What is left is only what paragraph [0062] discloses: the “redirect server ... *forwarding* the configuration setting data to the network entity 12a.” EX1006, ¶[0052] (emphasis added). This falls well short of disclosing Claim 2.

ii. Petitioner combines of different embodiments of Angelot (paragraph [0062] + other embodiments) to support a misleading interpretation of Angelot’s teachings

167. As I discuss above, Petitioner’s assertion that Angelot anticipates Claim 2 relies on mixing and matching the embodiments of paragraphs [0052] and [0062], which Angelot specifically refers to as “yet another exemplary embodiment.” *Supra* ¶157. Specifically, Petitioner alleges:

[T]he server 14 (ACSMD) serves as an “intermediary” and communicates “with one of the configuration servers 20a... to directly request and acquire the configuration settings data, and then forwarding

the configuration setting data to the network entity 12a.” (Ex. 1006, ¶62.)

Pet., 43. I note that in quoting this paragraph [0062], Petitioner omitted the first five words of the quoted sentence: “In yet another exemplary embodiment.” Petitioner then turns back to the embodiment discussed in paragraphs [0043]-[0054] to allege that Angelot discloses other elements from Claim 1 that Claim 2 includes. Pet., 43-46 (citing EX1006, ¶¶[0047], [0051]-[0052], Fig. 1, and Fig. 3a).

168. As I discuss above, Petitioner openly cites both the paragraph [0043]-[0054] embodiment and the paragraph [0062] embodiment in the same citation, alleging:

Specifically, the configuration setting data (reply) from the identified configuration server 20a is (1) acquired by the server 14 from the configuration server 20a and then (2) “*provided to the IP phone 12a based on the MAC address.*” (*Id.* ¶¶52, 62. (emphasis added).) Pet., 44 (emphasis omitted); *supra* ¶159. The paragraph [0062] cite appears to apply to Petitioner’s point (1) while the paragraph [0052] citation appears to apply to Petitioner’s point (2).

169. Petitioner’s combining of Angelot’s embodiments is well-illustrated in its annotated version of Angelot’s Figure 1 (Pet., 23-24), reproduced below in three modified versions, each having additional annotations that expose Petitioner’s

mixing and matching. The added annotations display number labels of paragraphs [0054] and [0062] in Angelot, which teach distinct embodiments.

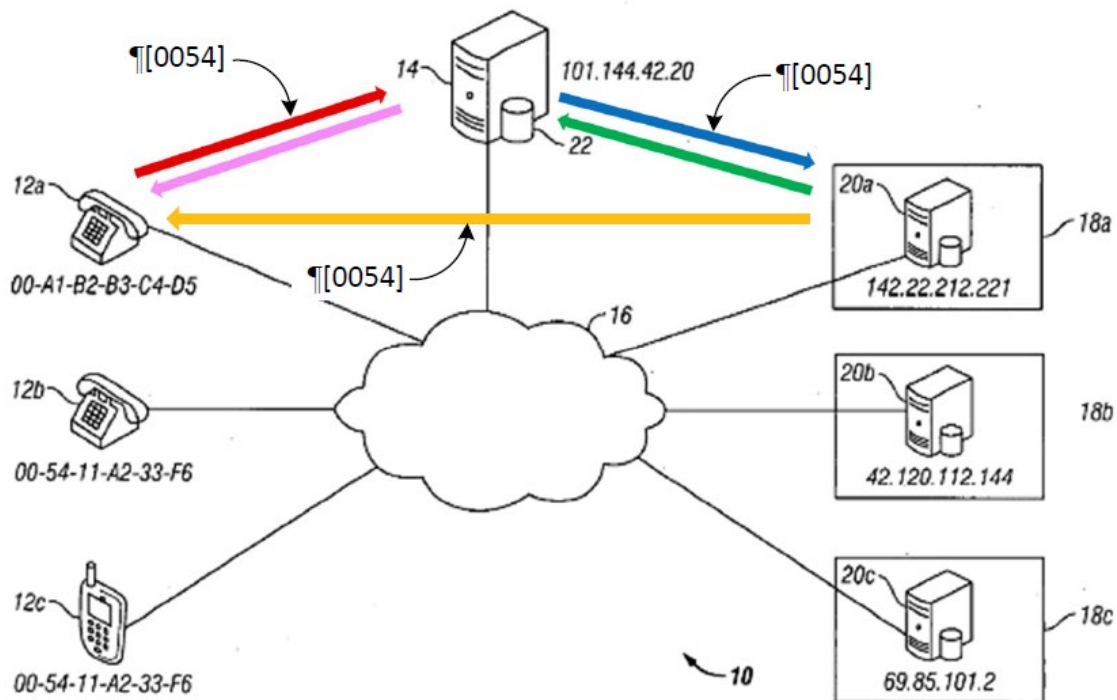
170. While Petitioner has combined embodiments from more than these two paragraphs in Angelot, consideration of just these two presents in graphical form the particularly misleading impression of Angelot’s teachings that results from Petitioner’s combinations. While all of Petitioner’s added arrows are retained in each of the three reproductions below, only those arrows with an additional annotation of a paragraph number are relevant to the particular embodiment disclosed in the paragraph. Thus, arrows without paragraph annotations correspond to a *different* embodiment—demonstrating Petitioner’s combining of embodiments. Two of the three annotated versions below include an additional colored arrow (a yellow-orange arrow in the first version below and a light-blue arrow in the third version below) that corresponds to one or more embodiment steps that Petitioner omitted in its annotated version. Also, ¶[0062] actually describes two different embodiments, which are distinguished in the annotated figures below by labels “¶[0062]a” and “¶[0062]b.”

171. The first modified version of Petitioner’s annotation of Figure 1 illustrates a correspondence to the embodiment of ¶¶[0043]-[0054], with a focus on actions disclosed in ¶[0054]. In this embodiment, the network entity 12 sends a

request for configuration data to central server 14 (as shown by the red arrow), which redirects (forwards) the request to the service provider 18a (as shown by the blue arrow). In a step omitted by Petitioner, configuration data are forwarded from the service provider to the network entity (as shown by the yellow-orange arrow). Note that, contrary to what is shown by Petitioner’s green and pink arrows (with no paragraph annotations) in Petitioner’s annotation, the configuration settings are not forward to the network entity via the central server.

172. It is noteworthy that the disclosure of the “[f]irmware upgrades/downgrades may also be provided to the IP phone 12a based on the MAC address” in ¶[0052], which is part of the embodiment of ¶¶[0043]-[0054] illustrated below, plays no part in any forwarding action, for the reasons I discuss above.

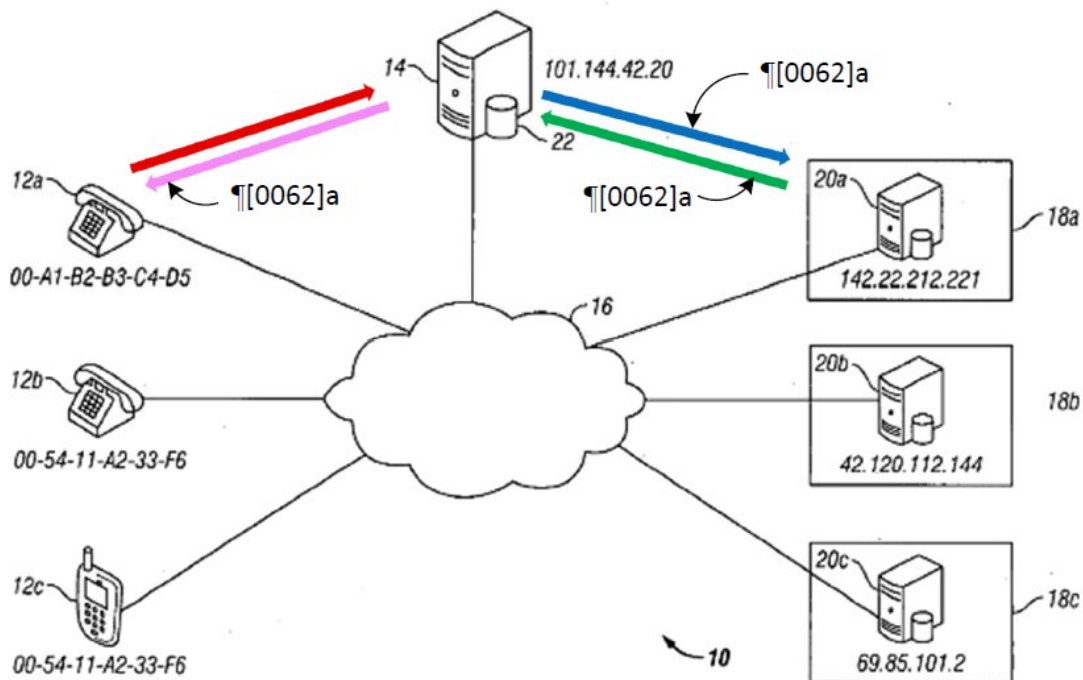
Supra ¶164.



173. The second modified version of Petitioner’s annotation of Figure 1 illustrates a correspondence to the first embodiment of paragraph [0062], labeled “¶[0062]a” in the present discussion. This embodiment *begins* with the central server 12 “directly” requesting configuration settings from a configuration server (as shown by the blue arrow). The central server then acquires the configuration settings (as shown by the green arrow), and then *forwards* them to the network entity (as shown by the pink arrow). Note that, contrary to what is shown by the red arrow (with no paragraph annotation) of Petitioner’s annotation, this

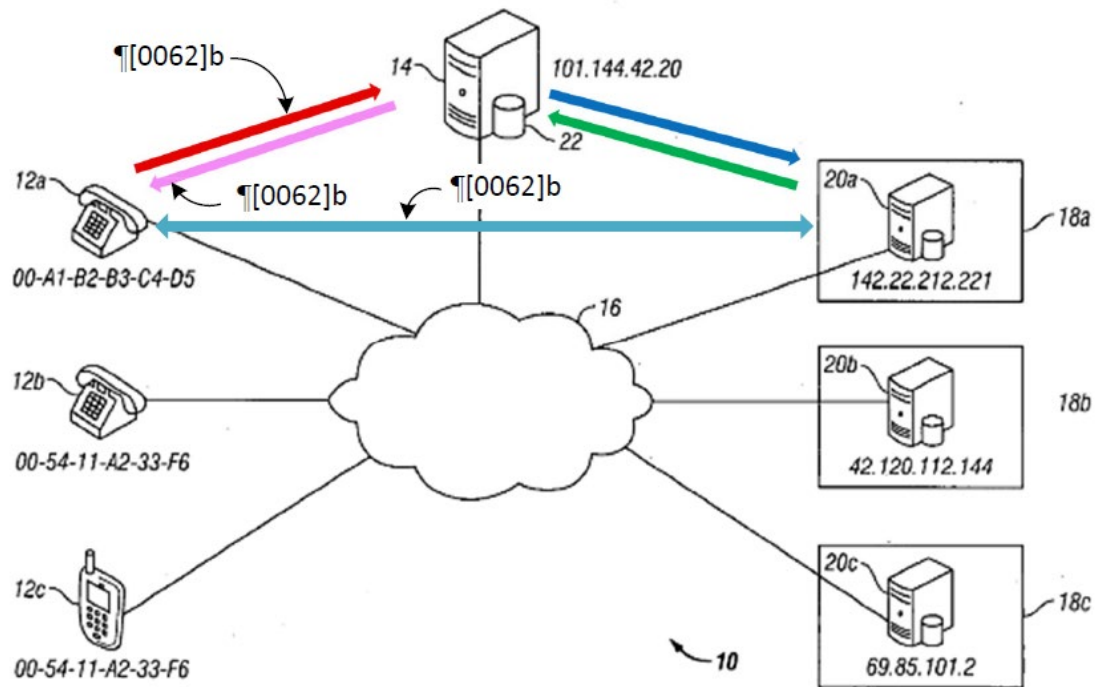
embodiment does not disclose a request for configuration data from the network entity to the central server.

174. As I discuss above, there is no disclosure in Angelot that MAC address is used by the central server to forward (pink arrow) configuration settings to the network entity. Again, Petitioner’s cite to the embodiment of paragraph [0052]—which is distinct the embodiment of paragraph [0062]—for a disclosure of MAC-based forwarding is erroneous and unsupported. *Supra* ¶¶158-166.



175. The third modified version of Petitioner’s annotation of Figure 1 illustrates a correspondence to the second embodiment of paragraph [0062],

labeled “¶[0062]b” in the present discussion. In this embodiment the network entity contacts the central server 14 with a request for configuration information (as shown by the red arrow), and the central server 14 responds with a URI of a configuration server (as shown by the pink arrow). The network entity then contacts the configuration server directly to obtain its configuration settings (as shown by the light blue arrow). The configuration server 20a responds with the configuration information specific for that network entity 12a, based on the second mapping table. The direct contact between the network entity and the configuration server is another embodiment step omitted by Petitioner. Note that, contrary to what is shown by the blue and green arrows (with no paragraph annotations) of Petitioner’s annotation, this embodiment does not disclose any communication between the central server and the service provider or configuration server.



176. What is noteworthy about the embodiments in paragraphs [0054] and [0062] of Angelot (and other variations omitted here for the sake of brevity in the modified versions of annotated Figure 1) is that **none** of them incorporate all the limitations of any of Claims 2, 11, 14, or 16.

177. In its Decision to Institute Review, the Board described paragraph [0062] of Angelot as follows:

Paragraph 62 states that the central server ‘serves as a proxy or *intermediary*, by communicating with one of the configuration servers 20a, 20b, or 20c to directly *request* and acquire the configuration settings, and *then forwarding* the configuration setting data to the network entity 12a.’ Ex. 1006 ¶ 62 (emphasis added). This sentence

indicates that the central server acts as an ‘intermediary’ between the network entity and the configuration server, and thus receives both a request from the network entity and a reply from the configuration server. *Id.* This is consistent with Angelot’s claim 13, which recites a system in which the central server acts as an ‘intermediary’ by receiving a request from a network entity, redirecting the request to an appropriate configuration server, and then passing the reply from the configuration server to the network entity. *Id.* at claim 9, 13; *see* Pet. 44 (citing Ex. 1006, claim 13).

Inst. Decision, 22-23. From the “indicates” quoted above, the Board found that “Angelot’s paragraph 62 also describes an embodiment in which the central server receives a request from a network entity.” *Id.* at 23.

178. I disagree with the Board’s findings that paragraph [0062] of Angelot “indicates the central server . . . receives . . . a request from the network entity,” and “describes an embodiment in which the central server receives a request from a network entity.” Inst. Decision, 22-23. Paragraph [0062]’s reference to “directly request” does not disclose, teach, or suggest the central server receiving a request from the network entity. As I discuss above, if the request were not actually made “directly” from the central server, the paragraph [0062] embodiment does not disclose where such a request would have come from. *Supra* ¶115.

179. Further, Angelot’s claim 13 does not support the Board’s finding that in the paragraph [0062] embodiment the server 14 receives a request from the

network entity. Angelot’s claim 13 states the “central server serves as a proxy or intermediary, by communicating with one of said configuration servers to directly request and acquire said configuration settings data associated with said identifier.”

EX1006, claim 13. Angelot’s claim 13 does not mention the central server receiving a request from a network entity. Again, this claim’s reference to “directly request” does not disclose, teach, or suggest the central server receiving a request from the network entity. If the request were not actually made “directly” from the central server, claim 13 does not disclose where such a request would have come from. Thus, I disagree with the Board’s finding that Angelot’s claim 13 “recites a system in which the central server acts as an ‘intermediary’ by receiving a request from a network entity.” Inst. Decision, 22-23.

180. In its Decision to Institute Review, the Board found that “the cited disclosures from paragraph 54 and 62 are not distinct teachings.” Inst. Decision, 23. But because I disagree with the Board’s finding that “paragraph 62 also describes an embodiment in which the central server receives a request from a network entity” for the reasons discussed above, I also disagree with the Board’s finding that “paragraph 54 and 62 are not distinct teachings.” *Id.*

iii. Petitioner’s combination of different embodiments of Angelot is technically improper as the embodiment of paragraph [0062] cannot work with the other embodiments

181. In my opinion, Petitioner’s proposed combination of the embodiment of paragraph [0062] in Angelot with other embodiments disclosed in Angelot does not technically work.

182. In contrast to the embodiment of paragraph [0062], in every other embodiment of Angelot in which the server 14 forwards or redirects a request for configuration data from the network entity, the configuration server sends the configuration data directly to the network entity. In the embodiment of paragraph [0062], however, the redirect server 14 “directly request[s]” and acquires configuration setting data. The redirect server 14 then forwards that data to the network entity.

183. For example, paragraph [0054] states:

In step 116, a configuration server 20a, 20b or 20c, associated with the appropriate service provider 20a, 20b or 20c, selects the configuration settings for the IP phone 12a with that specific MAC address as per second mapping table, *and forwards the relevant configuration settings data to the IP phone 12a.*”

EX1006, ¶[0054] (emphasis added). This disclosure shows that in the embodiment of paragraphs [0043]-[0054], the configuration server sends configuration data directly to the network entity—not via the redirect server 14.

184. In addition, Step 116 in Figure 2 states: “Cause the ***configuration server to provide*** the configuration settings ***to the identified network entity 12a.***” *Id.*, Fig. 2 (emphasis added). This disclosure also shows that in the embodiment of paragraphs [0043]-[0054], the configuration server sends configuration data directly to the network entity—not via the redirect server 14.

185. Similarly, paragraph [0055] states:

The request is subsequently forwarded to the appropriate service provider 18b with configuration server 20b which selects the appropriate configuration settings for the IP phone 12b using the second mapping table, and the ***configuration settings data is subsequently sent to the IP phone 12b via a suitable protocol.***”

EX1006, ¶[0055] (emphasis added). This disclosure shows that in the embodiment of paragraph [0055], the configuration server sends configuration data directly to the network entity (the IP phone 12b).

186. Further, paragraph [0057] states:

Having received the request from the central server 14, the configuration server 20a may require authentication of the IP phone 12a, and thus sends an acknowledgment of receipt to the IP phone, along with a request for a Username and/or Password, or other credentials (as provided by the service provider 18a). After validation of the user credentials, the ***configuration settings data is then sent to the IP phone 12a.***”

EX1006, ¶[0057] (emphasis added). This disclosure shows that in the embodiment of paragraph [0057], the configuration server sends configuration data directly to the network entity (the IP phone 12a).

187. Based on my reading of Angelot, Angelot teaches that in all but one embodiment the configuration server 20 provides configuration data directly to the network entity 12. Only in the embodiment of paragraph [0062] are the configuration data acquired by the central server from the configuration server. This appears to be the result of the central server making a “*direct request*” to the configuration server for that data in that particular embodiment. And in this embodiment, the central server *forwards* the configuration data to the network entity.

188. Dr. Blumenthal did not present any evidence that a POSITA would have envisaged his proposed combination of Angelot’s embodiments. Further, for at least the reasons discussed above, in my opinion, a POSITA, reading Angelot, would not at once envisage the Challenged Claims.

iv. Paragraph [0062] of Angelot does not disclose what triggers the redirect server to “directly request” configuration settings from the configuration server

189. I understand that Claim 2 requires (emphasis added):

wherein the manageable electronic device is configured
to send a request for configuration data to the ACSMD, . . .

wherein the ACSMD is configured, *responsive to receiving the request*, to:

identify the manageable electronic device by
comparing
at least a portion of the request with the
information for the identification of electronic devices of
the at least one database, and

identify an ACS from the plurality of ACSs in
accordance with the identification of the
manageable electronic device to provide configuration
data to the manageable electronic device, and

wherein the ACSMD is further configured to relay the
request to the identified ACS,

wherein the ACSMD is further configured to receive a
reply from the identified ACS, and relay the reply to the
manageable electronic device.

As set forth in Claim 2, the above-recited sequence is triggered by the ACSMD
receiving a request for configuration data from the manageable electronic device.

190. As I discuss above, in an attempt to show that Angelot allegedly
teaches “wherein the ACSMD is further configured to receive a reply from the
identified ACS, and relay the reply to the manageable electronic device,” Petitioner
and Dr. Blumenthal turn to paragraph [0062] for the proposition that:

[T]he redirect server 14 serves as a proxy or intermediary, by
communicating with one of the configuration servers 20a, 20b or 20c to

directly request and acquire the configuration settings data, and then forwarding the configuration setting data to the network entity 12a. Pet., 43 (quoting EX1006, ¶[0062]); EX1002, ¶133.

191. Angelot expressly states, however, that in the paragraph [0062] embodiment, the server 14 communicates with one of the configuration servers 20 to “directly request” and acquire configuration settings data. EX1006, ¶[0062]. In direct contrast to this disclosure, Claim 2 requires that the ACSMD only request and receive configuration data “responsive” to receiving a request for that data from a manageable electronic device. Accordingly, even if the “[y]et another embodiment” of paragraph [0062] is combined with other Angelot embodiments (such as the embodiment discussed in paragraphs [0043]-[0054]), in my opinion, Angelot still fails to anticipate Claim 2.

192. As I discuss above, I disagree with the Board’s findings that paragraph [0062] (i) indicates the central server receives a request from the network entity, and (ii) describes an embodiment in which the central server receives a request from a network entity. *Supra* ¶178.

v. Angelot does not disclose that the server 14 does any type of “processing” of a reply when “forwarding” configuration settings

193. Again, the Petition’s arguments rest on combining distinct embodiments of Angelot disclosed in paragraphs [0052] and [0062]. Specifically,

Petitioner, at page 45 cites to ¶136 of Dr. Blumenthal’s declaration (errantly labeled ¶135 in the Petition), stating:

For example, the phone “12a is typically identified by its MAC address” and “the configuration files on the configuration server 20a may be named using this information, for example, a configuration file named *iphone12a-mac-00-a1-b2-b3-c4-d5.cfg* would correspond to the IP phone 12 a having *00-a1-b2-b3-c4-d5* as its MAC address.” (Id., ¶52 (emphasis added).) Thus in response to receiving a configuration file named *iphone12a-mac-00-a1-b2-b3-c4-d5.cfg*, the server 14 looks to database 22 to determine the MAC address of the phone where the configuration file will be provided/relayed. (Ex. 1002, ¶135.)

194. As I discuss above, however, the citation to MAC address in “¶52” of Angelot refers to the “second mapping table” of configuration settings at the configuration server. *Supra* ¶163. That is, paragraph [0052] of Angelot is concerned only with the association of configuration settings in the “second mapping table” with MAC address.

195. Dr. Blumenthal’s assertion that “[i]n response to receiving a configuration file named *iphone12a-mac-00-a1-b2-b3-c4-d5.cfg*, the server 14 looks to database 22 to determine the MAC address of the phone where the configuration file will be provided/relayed,” EX1002, ¶136 is wrong. First, there

is no disclosure, teaching, or suggestion in Angelot of the second mapping table of “¶52” being accessed by the central server. Second, Angelot discloses that the first mapping table in database 22 provides only a one-way mapping of MAC address to one or more configuration servers. There is no disclosure, teaching, or suggestion that the first mapping table contains any information that is or could be used by the central server to “determine the MAC address of the phone where the configuration file will be provided/relayed.” EX1002, ¶136. Dr. Blumenthal’s assertion in ¶136 of EX1002 is speculative, unsupported, and conclusory.

196. As I discuss above, paragraph [0062], alone, discloses the server 14 “forwarding the configuration setting data to the network entity 12a.” *Supra* ¶160. Thus, Dr. Blumenthal has again mixed and matched distinct embodiments of Angelot in making a conclusory and erroneous assertion.

197. But even putting aside Petitioner’s and Petitioner’s expert’s reliance on paragraph [0062] for disclosing “forwarding the configuration setting data to the network entity 12a,” there is simply no teaching or suggestion in paragraph [0062] or anywhere else in Angelot of “in response to receiving a configuration file named iphone12a-mac-00-a1-b2-b3-c4-d5.cfg, the server 14 looks to database 22 to determine the MAC address of the phone where the configuration file will be

provided/relayed.” This assertion by Dr. Blumenthal is pure invention on the part of Petitioner’s expert and should be given no weight.

vi. A POSITA would not have considered paragraph [0052] to understand paragraph [0062]

198. As I discuss above, paragraph [0052] and paragraph [0062] of Angelot are distinct embodiments. *Supra* ¶¶169, 193. Further, as I discuss above, I disagree with the Board’s findings that paragraph [0062] (i) indicates the central server receives a request from the network entity, and (ii) describes an embodiment in which the central server receives a request from a network entity. *Supra* ¶178.

199. In its Decision to Institute, the Board found that “a person of ordinary skill in the art would have considered paragraph 52 to understand how the central server in Angelot’s paragraph 62 embodiment processes a request from a network entity.” Inst. Decision, 24. I disagree with the Board’s finding.

200. First, as I discuss above, Angelot discloses that the “first mapping table” described in paragraph [0052] serves only for forwarding a device’s “request” received at the central server 14 *from* the central server 14 *to* one or more configuration servers 20a, 20b, 20c, based on the MAC address of the device that issued the “request.” EX1006, ¶[0052]; *Supra* ¶161. Thus, the first mapping table only provides a one-way mapping.

201. As I also discuss above, the first mapping table described in paragraph [0052] of Angelot does not provide any information that could be used by the central server 14 to forward “configuration data” received at the central server 14 (e.g., a reply from a configuration server 20a, 20b, or 20c) from the central server 14 to IP phone 12a to which the configuration data (reply) applies. EX1006, ¶¶ [0052], [0054]; *supra* ¶161.

202. And as I discuss above, paragraph [0052] of Angelot does not disclose, teach, or suggest anything about the configuration server 20a, 20b, or 20c sending the configuration settings to either the IP phone 12a associated with the MAC address or the central server 14. *Supra* ¶162. Paragraph [0052] teaches that a configuration server has a “second mapping table” (Fig. 3b) that associates a MAC address with configuration settings for the device associated with the MAC address. EX1006, ¶[0052]. The configuration server uses the second mapping table as a look-up to determine the appropriate settings. *Id.*

203. But, for at least the reasons above, in the context of paragraph [0052]’s teaching of the second mapping table, a POSITA would understand the second mapping table, an extension to the second mapping table, or an additional form of stored information (e.g., an additional table), may associate a MAC address with “[f]irmware upgrades/downgrades.” EX1006, ¶[0052]. There is no

disclosure, teaching, or suggestion in paragraph [0052] or anywhere else in Angelot about how to get “[f]irmware upgrades/downgrades,” *id.*, to an IP phone, based the MAC address or anything else.

204. Thus, any assertion that “[f]irmware upgrades/downgrades may also be provided to the IP Phone 12a based on the MAC address” in paragraph [0052] is a disclosure, teaching, or suggestion of sending, forwarding, or relaying anything to the IP Phone 12a based on the MAC address is a misinterpretation of Angelot and is unsupported.

205. My disagreement with the Board’s finding that “a person of ordinary skill in the art would have considered paragraph 52 to understand how the central server in Angelot’s paragraph 62 embodiment processes a reply from the configuration server,” Inst. Decision, 24, thus stems from what appears to be a misapprehension that paragraph 52 of Angelot teaches forwarding something to an IP phone based on MAC address. This is not the case. *Supra* ¶¶158-166.

vii. A POSITA would not have considered paragraph [0054] of to understand paragraph [0062]

206. As I discuss above, paragraph [0054] and paragraph [0062] of Angelot are distinct embodiments. *Supra* ¶¶169, 193. Further, as I discuss above, I disagree with the Board’s findings that paragraph [0062] (i) indicates the central

server receives a request from the network entity, and (ii) describes an embodiment in which the central server receives a request from a network entity. *Supra* ¶178.

207. In its Decision to Institute, the Board found that “a person of ordinary skill in the art would have considered paragraph 54 to understand how the central server in Angelot’s paragraph 62 embodiment processes a request from a network entity.” Inst. Decision, 23. I disagree with the Board’s finding.

208. First, paragraph [0054] of Angelot includes the one and only teaching in Angelot that refers to “processes the request.” EX1006, ¶[0054]. This one and only reference in Angelot to “process[ing]” a “request” applies exclusively to “the central server 14 then redirects the request *to* an appropriate service provider 18a, 18b, 19c, as per the first mapping table.” *Id.* (emphasis added). There is no disclosure, teaching, or suggestion in paragraph [0054] or anywhere else in Angelot of processing by the central server 14 of a reply (that carries configuration data) in order to forward or redirect it to the IP phone 12a.

209. Paragraph [0062] of Angelot includes one of the only express teachings in Angelot of the central server 14 “forwarding the configuration setting data to the network entity.” EX1006, ¶[0062]. But there is no disclosure, teaching, or suggestion in this paragraph about processing any reply or other message by the central server 14 in order to “forward” it to the network entity. *Id.*; *supra* ¶197.

210. Thus, “a person of ordinary skill in the art [considering] paragraph 54 to understand how the central server in Angelot’s paragraph 62 embodiment processes a request from a network entity” would have found, at most, a disclosure of how to map MAC address *to* one or more configuration servers, but no disclosure, teaching, or suggestion about how to “process” configuration data in order to map it back to a network entity.

211. My disagreement with the Board’s finding that “a person of ordinary skill in the art would have considered paragraph 54 to understand how the central server in Angelot’s paragraph 62 embodiment processes a request from a network entity,” Inst. Decision, 23, stems from what appears to be a misapprehension that the one-way mapping (i.e., first mapping table) taught in paragraph 54 of Angelot would be instructive or relevant to forwarding anything from the central server to a network entity. This is not the case. *Supra* ¶161.

X. GROUND 2: ANGELOT DOES NOT RENDER OBVIOUS THE CHALLENGED CLAIMS

a. Petitioner fails to provide proper motivation to modify Angelot to use “relaying” instead of “forwarding”

212. I understand that Petitioner claims that it would have been obvious to modify Angelot such that the “forwarding” and “redirecting” disclosed by Angelot were instead Patent Owner’s claimed “relaying.” Pet., 55-56 (citing EX1002, ¶150 (claiming that “a person having ordinary skill in the art would have found it routine

and conventional to modify Angelot to relay the request and reply.”)). In my opinion, a POSITA would not have been motivated to modify Angelot to relay the request and reply.

213. Dr. Blumenthal asserts that “[i]n my opinion, a person having ordinary skill in the art would have recognized limited options for supplying the consumer device 12a with configuration data.” EX1002, ¶152; Pet., 57. I disagree.

214. In my opinion, Angelot itself provides several different ways to do so in its various embodiments. For example, paragraph [0056] states “the IP phone 12a initiates the discovery process automatically to look for a configuration server 20a 20b or 20c to retrieve its configuration data and/or its firmware.” EX1006, ¶[0056]. Paragraph [0058] discusses obtaining configuration settings via a browser with a default homepage as part of its factory settings. EX1006, ¶[0058]. And paragraph [0060] discusses a configuration server providing configuration data after automatically detecting connection of an IP phone to the network. EX1006, ¶[0060]. Thus, a POSITA would not have had “limited options” and would not have been motivated to modify Angelot due to any such alleged “limited options.”

215. Dr. Blumenthal also alleges that “the claimed relaying of ‘the request to the identified ACS’ and relaying of ‘the reply to the manageable electronic device’ is, at most, a predictable variation of Angelot’s system.” EX1002, ¶153; Pet., 58. A

POSITA would not have been motivated to do so, however. There is absolutely no reason or advantage to replacing Angelot’s “forwarding” and “redirecting” with Patent Owner’s claimed concept of “relaying,” as Dr. Blumenthal has done.

216. The Petition and Dr. Blumenthal further state:

Indeed, processing (i.e., modifying) the request before sending it to the proper configuration server *would have beneficially provided a mechanism* for straightforward and accurate automatic configuration of the network entity 12a “*without user intervention except to power-on and connect the at least one network entity to the network in order to contact the central server.*” (Ex. 1006, ¶21; Ex. 1002, ¶155.)

Pet., 60 (emphasis added); EX1002, ¶156. In my opinion, however, Petitioner and Dr. Blumenthal are just quoting Angelot and identifying what Angelot’s embodiments are purporting to achieve—without “relaying.” A POSITA would not have been motivated to modify Angelot with “relaying” to achieve what Angelot’s embodiments purported to achieve with “forwarding” and “redirecting.”

217. In my opinion, Dr. Blumenthal’s assertion in ¶156 (among others) is misleading. The alleged benefit of “accurate automatic configuration of the network entity 12a” cites to ¶21 of Angelot: “*whereby* the at least one network entity is automatically configured without user intervention except to power-on and connect the at least one network entity to the network in order to contact the central server,” which is the conclusion of steps disclosed in ¶¶ [0012]-[0021].

EX1006, ¶[0021] (emphasis added.) The term “whereby” that starts ¶21 would have informed a POSITA that what follows is achieved by at least one or more of the preceding steps of ¶[0012]-[0021]. Thus, to begin with, a POSITA would have understood this to mean that the alleged benefit is already taught by Angelot. There would have been no motivation to look elsewhere.

218. But even assuming, *arguendo*, that “processing (i.e., modifying) the request before sending it to the proper configuration server” were to be perceived as providing the benefit alleged by Dr. Blumenthal, a POSITA would have recognized that Angelot purports to teach this too. Specifically, the step of “receiving the request at the central server and determining which of the at least one of the service providers is associated with the identifier” in ¶18 would have been recognized as corresponding to “the central server 14 processes the request to determine whether the first mapping table comprises the unique MAC address associated with the request, and also determines which of the plurality of service providers 18a, 18b, 18c the MAC address belongs to” disclosed in ¶54. EX1006, ¶[0054]. Again, a POSITA would not have found anything to modify in Angelot’s teachings.

219. Finally, as discussed above, the processing of the request disclosed in ¶54—the one and only such teaching in Angelot—has been mapped by Petitioner

to limitation [1g], whereas the processing required by the District Court’s construction of relaying is part of limitation [1h], which is a different limitation. Pet., 35. Thus, the “processing (i.e., modifying) the request before sending it to the proper configuration server” that Dr. Blumenthal alleges would be beneficial is already taught by Angelot, but mapped by Petitioner to limitation [1g], so it cannot also be applied to transforming “forwarding” taught by Angelot into “relaying,” which is not.

220. The Petition and Dr. Blumenthal further assert that motivation can be found among the advantages of preventing “unauthorized devices from being configured.” Pet., 65; EX1002, ¶164. In my opinion, however, Angelot already discloses such an embodiment in paragraph [0057], and no relaying is involved:

Having received the request from the central server 14, the configuration server 20a may require authentication of the IP phone 12a, and thus sends an acknowledgment of receipt to the IP phone, along with a request for a Username and/or Password, or other credentials (as provided by the service provider 18a).

After validation of the user credentials, the configuration settings data is then sent to the IP phone 12a.

EX1006, ¶[0057]. After authentication, configuration settings data can be sent by forwarding; relaying is not described or an advantage. Hence a POSITA would not be motivated to modify Angelot based on these purported advantages either.

221. In sum, the assertions of Petitioner and Dr. Blumenthal regarding modifying Angelot are based on a solution to a problem that simply does not exist in Angelot. A POSITA would not have modified Angelot as proposed in the Petition to solve a non-existent problem.

222. In its Decision to Institute Review, the Board found that “Petitioner provides evidence that a person of ordinary skill in the art would have had a reason to modify Angelot’s central server to use relaying, namely, to ensure that the appropriate configuration server receives a request and the appropriate network entity receives a reply.” Inst. Decision, 27 (citing EX1002, ¶¶154-159). I disagree with the Board’s finding.

223. As I discuss above, a POSITA would not have been motivated to modify Angelot with “relaying” to achieve what Angelot’s embodiments purported to achieve with “forwarding” and “redirecting.” *Supra* ¶¶218, 220.

224. Because Angelot’s embodiments already purport to “ensure that the appropriate configuration server receives a request,” Inst. Decision, 27, with forwarding and redirecting the request, Petitioner has not proven why a POSITA would have been motivated to modify Angelot to relay the request. Petitioner’s Ground 2 simply seeks to substitute a redundant feature (relaying the request) to Angelot, without explaining why a POSITA would have concluded that Angelot

needed to be modified. Petitioner’s alleged reason to modify Angelot to relay the request would have been to obtain a benefit that is already taught—and even identified as a beneficial outcome—by Angelot in forwarding or redirecting the request.

225. Further, because Angelot’s embodiments already purport to “ensure that . . . the appropriate network entity receives a reply,” Inst. Decision, 27, with forwarding and redirecting the reply, Petitioner has not proven why a POSITA would have been motivated to modify Angelot to relay the reply. Again, Petitioner’s Ground 2 simply seeks to substitute a redundant feature (relaying the reply) to Angelot, without explaining why a POSITA would have concluded that Angelot needed to be modified. In other words, Petitioner’s alleged reason to modify Angelot to relay the reply would have been to obtain a benefit that is already taught by Angelot in forwarding or redirecting the reply.

b. Ground 2 does not cure Angelot’s deficiencies as to Claim 3

226. Petitioner’s Ground 2 asserts that it would have been obvious to modify Angelot to achieve “relay” recited in limitation [1h] and in Claim 2, and in my opinion does not cure the deficiencies of Angelot as to “the type of the manageable electronic device” recited in Claim 3. Inst. Decision, 25.

227. Petitioner did not argue that Angelot would have rendered obvious “wherein the ACSMD is further configured to identify the type of the manageable electronic device by comparing a network address of the manageable electronic device in the request with a predetermined plurality of network addresses in the at least one database” recited in Claim 3.

228. Further, in my opinion, Angelot would not have rendered obvious “wherein the ACSMD is further configured to identify the type of the manageable electronic device by comparing a network address of the manageable electronic device in the request with a predetermined plurality of network addresses in the at least one database” recited in Claim 3.

XI. GROUND 3: ANGELOT IN VIEW OF ZAKURDAEV DOES NOT RENDER OBVIOUS THE CHALLENGED CLAIMS

a. Zakurdaev does not teach “relay”

229. Zakurdaev discloses a “Smart DHCP Relay server” and I understand that Petitioner cites Zakurdaev for the concept of relaying a message. Pet., 68. In my opinion, however, Zakurdaev does not teach “relay the request” or “relay the reply” as recited in the Challenged Claims. In Zakurdaev, “relay” is a device; relay is not an action. Zakurdaev only describes a relay device that forwards; Zakurdaev does not describe a relay device that relays.

230. As set forth in paragraph [0012] of Zakurdaev:

A Smart DHCP Relay proxy server is placed between the user terminal and the ISP formed forto [sic] receiving receive all IP address requests, and more particularly, DHCP address requests, to determine the ISP to which the request should be *forwarded*, based on the user preferences and supplied credentials and then to *forward* the request to the ISP. Accordingly, the ISP equipment responds, upon receiving the *forwarded* request, and generates an IP address for delivery to the user terminal that generated the request.

EX1007, ¶[0012] (emphasis added).

231. Forwarding a request is well-known and taught by Angelot, however. Thus, Zakurdaev is merely cumulative of other references such as Angelot. Zakurdaev does not teach anything beyond what Angelot teaches regarding forwarding.

232. The Petition’s reliance on paragraph [0014] of Zakuradev (Pet., 68-69) is misplaced. First, paragraph [0014] refers to the “ISP” sending the “IP address to the subscriber equipment,” and not the Smart DHCP Relay. EX1007, ¶[0014]. Second, paragraph [0014] refers to “transmitting” the “IP address”—there is no teaching that the ISP or the Smart DHCP relays the IP address. *Id.*

233. In its Decision to Institute Review, the Board found that “Zakurdaev also teaches that the DHCP relay ‘stores (maps)’ the IP address reply from the ISP and then sends it the user terminal,” and “[t]hus, consistent with the district court’s

construction of the term ‘relay,’ Zakurdaev teaches that the DHCP processes the request and the reply.” Inst. Decision, 29 (citing EX1007, ¶[0027]. I disagree with the Board’s findings.

234. Zakurdaev’s teaching of storing the IP address is not processing the reply based on its payload. Paragraph [0027] cited by the Board states “[t]he Smart DHCP Relay 212, upon receiving the DHCPOFFER signal, stores (maps) an IP address for the ISP server 216 to a subscriber MAC address.” EX1007, ¶[0027]. As a POSITA would have understood, the IP address for the ISP sending a DHCPOFFER would be in the message header. RFC 2131, cited by Petitioner, teaches that the DHCP header includes IP addresses. EX1012, 9-10. For example, RFC 2131 discloses the header fields yiaddr and giaddr in the DHCPOFFER include IP addresses. *Id.* at 28 (“yiaddr” is “IP address offered to client,” and “siaddr” is “IP address of next bootstrap server”); *see also id.* at 10 (siaddr), 13, 25 (“[t]he IP destination address (*in the IP header*) [of the DHCPOFFER message] is set to the DHCP ‘yiaddr’ address” (emphasis added)). Thus, in my opinion, the portion of paragraph [0027] of Zakurdaev cited by the Board relates to an IP address in the header, not in the payload, and POSITA would therefore not have considered Zakurdaev as teaching processing based on the payload. Indeed, RFC 2131 does not mention “payload” even once.

235. The District Court’s construction of “relay” as related to “process” in both the *Samsung* Litigation and in the *Ericsson* Litigation is “process . . . a request based at least in part on its *payload*.” EX1005, 60-61; EX2012, 46. As such, it is my opinion that Zakurdaev’s teaching cited by the Board in the Institution Decision is not consistent with the District Court’s construction of “relay.”

b. Petitioner fails to provide proper motivation to modify Angelot with Zakurdaev

236. Zakurdaev does not cure Angelot’s deficiencies. For example, paragraph [0056] of Angelot describes DHCP as follows:

Typically, in a managed enterprise LAN, or SOHO network, environment with DHCP being enabled, the configuration settings are provided using Option 66/Option 67. *In addition to its IP address, the DHCP server could provide the IP phone 12a with a DNS server, a default gateway. It can also be configured to provide the IP address of the central server 14.* If the URI of the central server 14 is specified, the IP phone 12a uses any suitable protocol to contact the central server 14 on the network 16.

EX1006, ¶[0056] (emphasis added).

237. Thus, in Angelot, the DHCP step precedes the request for configuration. Zakurdaev’s teachings of DHCP do not help Angelot’s teachings regarding network entity configuration. Angelot is not concerned with getting

access to a DHCP server. Instead, “the DHCP server” is a given in Angelot.

EX1006, ¶[0056].

238. The Petition’s assertion that Angelot “does not provide details on how to utilize DHCP communications” (Pet., 70) misses the point. Angelot’s paragraph [0056] is clear in the role of the DHCP server, and that it differs from that of the central server 14 and the configuration server 20a, 20b, or 20c. EX1006, ¶[0056].

239. In Angelot, the DHCP server is separate from the central server 14, and serves a different role: it provides the IP phone 12a with an IP address, and possibly the IP address of the central server 14. *Id.* The IP phone 12a must first communicate with the DHCP server before it can engage with the central server 14. *Id.*

240. Petitioner’s proposed combination in Ground 3 would have the IP phone send a request for configuration and IP address to a combination of Zakurdaev’s DHCP server and Angelot’s central server via a combination of Zakurdaev’s DCHP Smart Relay and Angelot’s configuration server. Pet., 70.

241. But Angelot teaches that the IP phone 12a **first** gets an IP address directly from a DHCP server, and **only after** that sends a request to a configuration server 20a, 20b, or 20c via the central server 14. EX1006, ¶[0056]. Petitioner’s proposed combined teachings would have the IP phone send a request for

configuration and IP address to Zakurdaev’s DHCP server (combined with Angelot’s configuration server) via Zakurdaev’s DHCP Smart Relay (combined with Angelot’s central server), where Angelot teaches that the IP phone first gets an IP address directly from a DHCP server, and only after that sends a request to a configuration server via the central server. Petitioner has provided no reason why a POSITA would have been motivated to modify Angelot’s teachings in this way.

242. Further, in my opinion, Petitioner’s proposed Angelot-Zakurdaev combination is redundant. As I discuss above, Zakurdaev does not teach anything beyond what Angelot teaches regarding forwarding. *Supra* ¶231. Petitioner has not shown that Zakurdaev’s DHCP teachings are any different from those of Angelot in connection with sending requests and/or responses between the IP phone 12a and the configuration server 20a, 20b, or 20c, via the central server 14.

243. Not only does Petitioner’s proposed Angelot-Zakurdaev combination fail to provide any advantage to Angelot, it does not even change or add to any of the actual actions already disclosed in Angelot. That is, if the term “Relay” in Zakurdaev is replaced with “Device,” and the Petition’s repeated use of “relay” in place of “forward,” “send,” and/or “transmit,” (Pet., 68-69) is ignored, then a POSITA would have been left with no improvement to Angelot or any action beyond what is already taught.

244. Because Angelot and Zakurdaev purportedly independently operate effectively, a POSITA, who was merely seeking to create a better system, would have had (i) no reason to combine Zakuradev’s DHCP server with Angelot’s central server into a single system, and (ii) no reason to combine Zakurdaev’s DHCP Smart Relay with Angelot’s configuration server into a single system.

c. Ground 3 does not cure Angelot’s deficiencies as to Claim 3

245. Petitioner’s Ground 3 asserts that it would have been obvious to combine Angelot and Zakuradev to achieve “relay” recited in limitation 1[h] and in Claim 2, and in my opinion does not cure the deficiencies of Angelot as to “the type of the manageable electronic device” recited in Claim 3. Inst. Decision, 25.

246. Petitioner did not argue that Zakuradev teaches “wherein the ACSMD is further configured to identify the type of the manageable electronic device by comparing a network address of the manageable electronic device in the request with a predetermined plurality of network addresses in the at least one database” recited in Claim 3.

247. Further, in my opinion, Zakuradev does not disclose, teach, or suggest “wherein the ACSMD is further configured to identify the type of the manageable electronic device by comparing a network address of the manageable electronic

device in the request with a predetermined plurality of network addresses in the at least one database” recited in Claim 3.

XII. ALL GROUNDS: ANGELOT DOES NOT DISCLOSE, TEACH, OR SUGGEST LIMITATION [1G], WHICH IS RECITED IN CLAIMS 2-6, 11, 14, AND 16

248. I note that each of “service provider[s] 18a and 18b” are shown in FIG. 3a to include multiple “configuration servers.” EX1006, Fig. 3a. Paragraph [0054] of Angelot teaches:

Upon receipt of the request, the central server 14 processes the request to determine whether the first mapping table comprises the unique MAC address associated with the request, and also determines which of the plurality of service providers 18a, 18b, 18c the MAC address belongs to. Once such a determination has been established, the central server 14 then redirects the request to an appropriate *service provider* 18a, 18b or 18c, as per first mapping table (*step 114*).

EX1006, ¶[0054] (emphasis added.)

249. In my opinion, the multiple “configuration servers” shown in Figure 3a along with redirection of the request to “an appropriate *service provider* 18a, 18b or 18c” disclosed in paragraph [0054] indicates that there is more to determining the “appropriate configuration server” than finding the MAC address in the “first mapping table.” For example, if a request is redirected to “service

provider 18a,” Angelot does not disclose which of the five “configuration servers” shown in FIG. 3a receives the request or how that would be determined.

250. Adopting, *arguendo*, Petitioner’s interpretation of the “configuration server” in Angelot as the “ACS” of Claims 2-6, 11, 14, and 16 (Pet., 25), in my opinion, there is at least an ambiguity as to whether Angelot can actually be interpreted as teaching “identify an ACS from the plurality of ACSs in accordance with the identification of manageable electronic device to provide configuration data to the manageable device”—identified by the Petition as part of limitation [1g].

251. For example, if Angelot can be interpreted as teaching “identify [*a service provider*] from the plurality of [*service providers*] in accordance with the identification of manageable electronic device to provide configuration data to the manageable device,” if the identified “service provider” is “service provider 18a,” then, according to FIG. 3a, an extra, undisclosed step would be required to further identify a “configuration server” from among the five configuration servers in the “first mapping table.”

252. Another problem with FIG. 3a is that MAC address 00-54-11-A2-33-F6 is listed for two different service providers and at two different IP addresses. EX1006, FIG. 3a (listing 00-54-11-A2-33-F6 for both SP 18b and SP 18c). In my opinion, having the same MAC address for two different service providers at two

different IP address would cause a conflict for the network 16, and further supports there is an ambiguity as to whether Angelot actually teaches limitation [1g].

253. In its Decision Denying Rehearing, the Board found that “[t]he portions of Angelot cited by Petitioner disclose an embodiment in which each service provider includes one configuration server.” Paper 12 (“Reh’g Decision”), 3 (citing Pet. 36-38 (citing Ex. 1006, ¶¶ 23, 52, 54)). In this regard, the Board found that “Angelot’s Figure 1 shows that each service provider 18a, 18b, and 18c includes one configuration server 20a, 20b, or 20c.” Reh’g Decision, 4.

254. I disagree with the Board’s findings that Angelot “disclose[s] an embodiment in which each service provider includes one configuration server,” and “Angelot’s Figure 1 shows that each service provider 18a, 18b, and 18c includes one configuration server 20a, 20b, or 20c.” *Id.* at 3-4.

255. First, I understand that Petitioner has disavowed that interpretation of Angelot in the *Ericsson* Litigation. In this regard, during the *Markman* hearing after the Petitioner filed the Petition but before the Board’s Decision Denying Rehearing, Petitioner argued to the *Ericsson* District Court that “[t]he service provider of Angelot cannot be equated with the configuration server in Angelot, something made clear by Figure 3a, which shows that a service provider may host multiple configuration servers.” Transcript of *Markman* Hearing October 3, 2023 (EX2014),

81:21-25; *see also id.* at 78:9-18 (“On Slide 106, we have Figure 3a from Angelot. And so we can see the ones that we’re talking about here is the first two of the three service providers; SP, service provider, 18a, and SP, service provider, 18b, and then below that there are configuration servers identified. Those first two have multiple configuration servers, and the third exemplary service provider 18c only has one. And then obviously there can be a plethora of service providers continuing to service provider 18x.”). Petitioner’s arguments regarding Angelot were in support of Petitioner’s proposed constructions of “plurality of auto-configuration servers (ACSS)” and “ACS” recited in Claim 2, which the *Ericsson* District Court rejected. EX2012, 47-50.

256. Second, in my opinion, the Board’s findings that Angelot “disclose[s] an embodiment in which each service provider includes one configuration server,” and “Angelot’s Figure 1 shows that each service provider 18a, 18b, and 18c includes one configuration server 20a, 20b, or 20c” (Reh’g, 3-4) discount the interrelatedness of Angelot’s Figure 3a to the remainder of Angelot and the Petition’s citation of Figure 3a in the Petition.⁴

⁴ In my opinion, Angelot’s reference to “*a* configuration server 20a, 20b, *or* 20c” and “*an* appropriate configuration server 20a, 20b, or 20c associated with one

257. Paragraph [0051] of Angelot discloses “a first mapping table which is maintained in a memory associated with the central server 14 (step 106), as shown in FIG. 3a.” Petitioner relies on the first mapping table and Figure 3a multiple times for its mapping of the Challenged Claims. Pet., 30 (limitation [1d]), 36-38 (limitation [1g]), 38 (limitation [1h]), 43, 46 (Claim 2), 48 (Claim 4), 49 (Claim 5), 59, 62, 65-66 (Ground 2), 68 (Ground 3). Petitioner even annotates Figure 3a multiple times in the Petition. Pet., 36-37, 46, 49-50, 59, 62. Figure 3a, which is cited by the Petitioner, does not “disclose an embodiment in which each service provider includes one configuration server.” Reh’g Decision, 3.

258. Further, Figure 3a is not a different embodiment of Angelot, as shown by Petitioner’s reliance on Figure 3a in the Petition. In my opinion, deeming Figure 3a to be a separate embodiment would be inconsistent with Petitioner’s reliance on

of the service providers 18a, 18b, 18c,” EX1006, ¶¶[0047], [0054] (emphasis added), does not support that Angelot discloses an embodiment in which each configuration server includes one and only one configuration server. Nothing in Angelot teaches or suggests that the terms “a” and “an” in paragraphs [0047] and [0054] are limited to “one.”

the combination of paragraphs [0043]-[0054] and paragraph [0062] of Angelot for the alleged anticipation of Claim 2.

259. Angelot does not disclose, teach, or suggest limitation [1g]: identifying one particular service provider in Angelot does not identify one particular configuration server. To the contrary, to satisfy Petitioner’s mapping, there would need to be a further step to identify a configuration server, which is not disclosed by Angelot.

XIII. CONCLUSION

260. For at least the reasons set forth above, Claims 2-6, 11, 14, and 16 of the ’772 Patent are patentable over Angelot and Zakurdaev.

261. For at least the reasons set forth above, Petitioner has not proven that Angelot or Zakurdaev render any of Claims 2-6, 11, 14, and 16 of the ’772 Patent unpatentable.

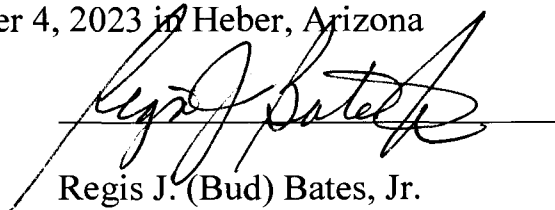
262. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or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

and that such willful false statements may jeopardize the results of these proceedings.

263. I recognize that I may be subject to cross-examination in this proceeding.

264. My opinions are based upon the information that I have considered to date. I reserve the right, however, to supplement my opinions in the future to respond to any arguments raised by Petitioner and to take into account new information that becomes available to me.

Executed on December 4, 2023 in Heber, Arizona



Regis J. (Bud) Bates, Jr.