

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOYOTA MOTOR CORP.,
Petitioner,

v.

EMERGING AUTOMOTIVE LLC,
Patent Owner

Case IPR2024-00786
U.S. Patent 9,171,268

**DECLARATION OF DR. SAM MALEK IN SUPPORT OF PATENT
OWNER'S PRELIMINARY RESPONSE**

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I, Dr. Sam Malek, declare under penalty of perjury as follows:

I. INTRODUCTION AND BACKGROUND

1. I have been retained as an expert witness on behalf of Emerging Automotive LLC (“Emerging Auto”) to provide information and assistance regarding U.S. Patent No. 9,171,268 (“the ’268 patent”). Specifically, I have been asked to consider the Petition for Inter Partes Review numbered IPR2024-00786 (“the Petition”) regarding the ’268 patent, and specifically the Declaration of Dr. Almeroth (EX1009) that accompanies the Petition.

2. In this declaration I provide my independent analysis of the ’268 patent in light of the materials cited below and discussed herein and my knowledge and experience in this field during the relevant time frame. I have been asked to consider what one of ordinary skill in the art at the time of the invention of the ’268 patent (a “POSITA,” see Section V below) would have understood from the specification, including scientific and technical knowledge related to the patent. I have also been asked to consider whether certain references anticipate or would have rendered obvious the inventions described in the claims of the ’268 patent.

3. My findings, as explained below, are based on my study, experience, and background in the fields discussed below, informed by my education and my extensive experience in the field of cloud-based processing systems. I have also relied on my review and analysis of the references identified by Dr. Almeroth,

information provided to me, and information that I have independently reviewed. I have personal knowledge of the facts and opinions set forth in this declaration, and, if called upon to do so, I would testify competently thereto.

4. I am being compensated for my independent analysis as an expert with respect to this *inter partes* review proceeding. My compensation is not contingent in any way on the content of my analysis, the opinions that I offer, or the outcome of this proceeding. I have no financial interest in Petitioner (Toyota) or Patent Owner (Emerging Auto) and I have no financial interest in the '268 patent.

II. QUALIFICATIONS

5. My qualifications for forming the opinions given in this declaration are summarized here and are addressed more fully in my curriculum vitae, which is submitted as EX2002. That exhibit also includes a list of my publications.

6. I have approximately 25 years of experience in the general area of computer and software technology in a variety of roles, including as a software engineer, software architect, and programmer at a variety of companies, as well as a researcher and professor at several universities.

7. I am currently a Full Professor of Software Engineering with tenure in the Informatics Department within the School of Information and Computer Sciences at the University of California, Irvine. I am also the Director of the Software Engineering and Analysis Laboratory ("SEAL"). My general research

interests are in the field of software engineering, and to date my focus has spanned the areas of software analysis and testing, mobile computing, architecture and design, and software dependability and security. The underlying theme of my research has been to devise techniques and tools that aid with the construction, analysis, and maintenance of largescale software systems.

8. I received my Ph.D. and M.S. degrees in Computer Science from the University of Southern California and my B.S. degree in Information and Computer Science from the University of California, Irvine. I have received numerous awards for my research contributions, including the Test of Time Award from the Association for Computing Machinery Special Interest Group on Software Engineering (2020), National Science Foundation CAREER award (2013), GMU Emerging Researcher/Scholar/Creator award (2013), and the GMU Computer Science Department Outstanding Faculty Research Award (2011).

9. I have authored over 130 peer-reviewed research publications. These publications have been highly cited (more than 11,000 times according to scholar.google.com). Many of my publications have dealt with the topics that are related to this proceeding, including distributed software systems, cloud computing, client-server architecture, and software settings and configuration. I provide a few examples here.

10. My Ph.D. dissertation resulted in novel algorithms for optimizing the deployment architecture of a distributed software system. The deployment architecture of a distributed software system is the allocation of its software components to its hardware devices. There are many deployments of a software system possible, but some may be superior to others with respect to certain quality of service objectives (e.g., latency, availability, security). One application of my dissertation work was in the context of cloud computing, because in most cloud-based software systems there are many geographically distributed nodes (servers) available for the deployment of software components.

11. I have also worked on techniques to leverage cloud computing for software testing. For instance, in an article titled “A Whitebox Approach for Automated Security Testing of Android Applications on the Cloud,” I showed how the resources in the cloud can be effectively harnessed to facilitate security testing at scale.

12. In another article titled “GLIDE: A Grid-based Lightweight Infrastructure for Data-intensive Environments,” I described the results of my work with colleagues from NASA in the development of a new distributed software system for sharing large amounts of data generated by NASA. This capability was the first of its kind in the realm of Grid Computing, which is a precursor to Cloud Computing.

13. I have also investigated how the user preferences with respect to certain settings can interact when users share a common physical space. For example, in an article titled “Towards Multi-Design of Situated Service-Oriented Systems,” I described an automated solution for resolving conflicts between user-preferred settings in shared physical spaces.

14. I have received numerous research grants from a variety of organizations, including the National Science Foundation (NSF), Federal Bureau of Investigation (FBI), Air Force Office of Scientific Research, Department of Homeland Security (DHS), National Security Agency (NSA), Defense Advanced Research Projects Agency (DARPA), Office of the Director of National Intelligence, and Army Research Office among others. Software systems and results produced in my research lab have been adopted for use by various organizations in both private (e.g., Boeing, Bosch) and public (e.g., NASA, DHS, FBI) organizations. Many of the above-mentioned projects and software systems involved analysis and design of client-server software systems deployed on the cloud. For instance, in a project called “RASS: Resilient Autonomic Software Systems” funded by Air Force Office of Scientific Research, I led a team of researchers to develop a new method of automatically adapting Air Force’s software systems to fluctuations in communication networks, thereby making them resilient to network interruptions.

15. I also have several years of experience as a software engineer, software architect, and programmer at a variety of companies, namely the Boeing Company, PricewaterhouseCoopers Consulting (later acquired by International Business Machines (“IBM”) Corporation), FieldCentrix, and Neural Computing Systems Lab. During my tenure in the industry, I gained professional experience in the design, development, and management of largescale software engineering efforts. Among the software systems that I designed and developed were commercial ecommerce and enterprise software systems. Many of the software systems developed in the context of my professional experience were built according to the general client-server architectural style and deployed on the cloud or cloud-like environments. In most of these systems, the server held the state of the distributed application, allowing for that state, such as the preferred user settings, to be transferred to client at runtime.

16. I have taught software engineering and computer science courses on a regular basis at the B.S., M.S., and Ph.D. levels at the universities where I have been employed. I cover concepts related to cloud computing, distributed software, client-server architectural style, and user preferences and settings in many of the courses that I teach at the university. Notably, I have regularly taught distributed software engineering courses at UC Irvine and previously at George Mason University (GMU). In these courses, I cover concepts such as the client-server architectural

style, cloud computing principles, and server-side storage of user-defined preferences.

17. I have been a frequent speaker at scientific conferences, symposia, workshops, and gatherings of software engineering academics and professionals. I have served as chair, committee member, and reviewer for numerous software engineering journals, magazines, and conferences. I have served on the editorial board of the ACM Transactions on Software Engineering and Methodology, IEEE Transactions on Software Engineering, the ACM Transactions on Autonomous and Adaptive Systems, the Springer Journal of Automated Software Engineering, and the Springer Journal of Computing. I am a member of the Association for Computing Machinery (ACM), ACM Special Interest Group on Software Engineering (SIGSOFT), and the Institute of Electrical and Electronics Engineers (IEEE). I have testified at trial and deposition as an expert witness in numerous cases in the past five years.

18. Because of my background, training, and experience, I am qualified as an expert in the technical areas relevant to the '268 patent and I am a POSITA.

III. MATERIALS CONSIDERED

19. In preparing this declaration and forming my opinions, I have considered: the claims, specification, and prosecution history of the '268 patent; the Petition and declaration by Dr. Almeroth (including all materials cited in each); and

all materials cited and discussed in this declaration. In addition, I have considered the relevant legal standards, as they have been explained to me by counsel and as I understand them. I have also considered the knowledge and understanding of a person of ordinary skill at the time of the invention of the '268 Patent, of which I am familiar. As part of my analysis for this matter, I have also considered my own knowledge and experience, including my work and experience with cloud-based processing systems.

IV. LEGAL PRINCIPLES

20. In forming my opinions here, I have applied the following understanding of certain legal concepts related to anticipation, obviousness, combinations of references, and knowledge of one of ordinary skill in the art. Counsel for Patent Owner has informed me of legal principles that apply in this proceeding.

21. It is my understanding that assessing the validity / patentability of a U.S. patent claim based on a prior art analysis requires two essential steps. First, one must analyze the terms of the patent claims to understand what meaning one of ordinary skill in the art would give the terms. Second, one may then assess validity by comparing a patent claim to the “prior art.” I understand that the teaching of the prior art is viewed through the eyes of a person of ordinary skill in the art at the time

the invention was made. My opinion as to what constitutes a relevant person of ordinary skill in the art is set forth below.

22. I have been informed that in order for a patent claim to be invalid as anticipated by a prior art reference under 35 U.S.C. § 102, each and every element of that patent claim must be found disclosed in that reference, explicitly or inherently, to a person of ordinary skill in the art. Inherent disclosure requires that the claimed element be the only possible option given the other disclosures of the reference, and that it would be so recognized by persons of ordinary skill in the art. I also understand that the missing descriptive material cannot merely be probably or possibly present. If any single element of a claim is not disclosed in the reference, the entire claim is not anticipated. I understand that a prior art reference merely capable of being modified so as to operate in the same manner as the patented device or system does not anticipate. I further understand that obviousness is not inherent anticipation, and that it is insufficient that a missing limitation is so similar to a limitation actually disclosed in the reference that one of ordinary skill in the art would see the substitution as obvious. I also understand that, if it is necessary to reach beyond the boundaries of a single reference to provide missing disclosure of the claimed invention, the proper ground for asserting invalidity is not anticipation, but obviousness.

23. I understand that a claim is invalid as obvious under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time of the invention to a person having ordinary skill in the art.

24. I understand that a person of ordinary skill in the art provides a reference point from which the prior art and the claimed invention should be viewed. This reference point prevents one from using his or her own insight or hindsight in deciding whether a claim is obvious.

25. I have been informed that the following factors are used to determine whether or not the claimed subject matter would have been obvious: (i) the scope and content of the prior art; (ii) the differences between the prior art and the claimed invention; (iii) the level of ordinary skill in the field of the invention; and (iv) any relevant objective considerations of non-obviousness, such as commercial success, long-felt but unresolved needs, failure of others, etc.

26. I also understand that in considering the scope and content of the prior art, references must be reasonably related (i.e., analogous) to the claimed invention of that patent. I understand that the test for determining whether a prior art reference constitutes analogous art to the claimed invention is (1) whether the reference is from the same field of endeavor, regardless of the problem addressed and, (2) if the

reference is not within the field of the inventor's endeavor, whether the reference is still reasonably pertinent to the particular problem the inventor is trying to solve.

27. I understand that a party asserting obviousness based on a combination of prior art references must demonstrate that one of ordinary skill in the art would have been motivated to combine the teachings of those references to achieve the claimed invention and that the skilled artisan would have had a reasonable expectation of success in doing so. It is my understanding that it is not enough to show that one skilled in the art could combine elements of multiple references, but instead there must be some reason that would have prompted a person of ordinary skill in the art to combine the elements in the way the claimed invention does. I understand that there must be some reasoned explanation as to why one of ordinary skill in the art would combine the references. The reason cannot come from hindsight.

28. I understand that in considering whether a claimed invention is obvious, one may but is not required to find obviousness if at the time of the claimed invention there was a reason that would have prompted a person having ordinary skill in the field of the invention 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. To find it rendered the invention obvious, the prior art must provide a reasonable expectation of success. Obvious to try is not sufficient in unpredictable technologies.

29. I understand that each claim must be evaluated separately for obviousness, and that it is improper to use hindsight. I understand that the disclosures in a patent or a prior art reference are viewed from the perspective of a person of ordinary skill in the art at the time of the invention. The obviousness analysis by a person of ordinary skill in the art must consider only what was known at the time of the invention.

30. It is my further understanding that obviousness cannot be based on a hindsight combination of components selected from prior art references. I also understand that an invention would not have been obvious simply because all of the elements of the invention may have been known separately in the prior art.

31. I understand that a combination of references would not have been obvious if the alleged modification(s) to be made to the reference(s) would have been inconsistent with the reference's stated goals or would have rendered the combination inoperable for its intended purpose. I further understand that for something to have been obvious, the party asserting obviousness must explain why a POSITA would have selected components for combination in the manner claimed.

32. I have been informed that a prior art reference must be considered in its entirety, i.e. as a whole, including portions that would lead away from the claimed invention.

33. I understand that with respect to claim construction, the proper construction is considered in the context of, and must be consistent with, the specification and that the claim language should be read in light of the specification and file history as it would be interpreted by one of ordinary skill in the art. I further understand that any claim interpretation that renders a claim term or phrase superfluous is disfavored.

V. PERSON OF ORDINARY SKILL IN THE ART ("POSITA")

34. Counsel for Patent Owner has informed me that a person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. In my opinion, the relevant field of art for the '286 patent is that of cloud-based processing systems.

35. For the purpose of this Declaration, and based on my opinions herein, the time of invention for the '286 patent is April 2011. However, I understand that Dr. Almeroth opines that the time of the invention is October 2013. Any invention date from the early 2010s to the mid-2010s would not alter my opinion regarding a person of ordinary skill in the art. Thus my opinion regarding a POSITA applies to either a date of invention in April 2011 or a date of invention in October 2013.

36. I have been informed by counsel for Patent Owner that the person of ordinary skill is generally familiar with the type of problems encountered in the field and the prior art solutions to those problems and possesses an ordinary level of creativity.

37. I understand that Petitioner's expert, Dr. Almeroth, opined that a person of ordinary skill in the art "have had at least a four-year undergraduate degree in electrical engineering, computer science, or a closely related field, with at least two to four years of experience in the field of cloud services for settings customization. Additional education (such as a Master's degree in electrical engineering, computer science, or equivalent) could substitute for professional experience and vice versa." EX1009, Almeroth Decl., ¶ 82.

38. For purposes of this declaration, I apply Dr. Almeroth's definition. However, I note that the opinions I set forth below are applicable under any reasonable definition of a POSITA.

VI. BACKGROUND

A. Overview of the '268 Patent

39. The '268 patent, titled “Methods and Systems for Setting and Transferring User Profiles to Vehicles and Temporary Sharing of User Profiles to Shared-Use Vehicles,” was filed on October 9, 2013 and issued on October 27, 2015. '268 Patent, cover page. The '268 Patent claims priority to multiple earlier applications, the earliest of which was filed on April 22, 2011. *Id.*, 1:15-28.

40. The '268 patent “relates to systems and methods for managing user profiles for vehicles and exchange of information with cloud-based processing systems.” '268 Patent, 1:32-34. As the '268 patent recognizes, “The Internet services provide access to cloud services. The cloud services provide access to user accounts and access to settings, configurations, applications and other customization defined by the user. Customization can include user interface customization of a vehicle display or displays.” *Id.* 6:14-18. As described, a user may configure settings of the vehicle to define, e.g., the “look and feel” “arrangements” and save the preferences in a profile of the user. *Id.*, 30:41. As the title of the patent shows, the patent relates to setting and transferring profiles to vehicles to apply settings of the vehicle for the user. *See also* Fig. 10.

B. Prosecution History of the '268 Patent

41. I also analyzed the prosecution history of the '268 patent in forming my opinions. Of particular relevance here, I disagree with Dr. Almeroth's opinions that a POSITA would ignore limitations of the claims. In my opinion, claim 10 expressly requires "determining, by the server, applicable settings ... that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle." *Id.*, 33:1-26 (Claim 10). Similarly, independent claim 20 requires "wherein certain of the user settings are determined to be compatible for use with the vehicle." *Id.*, 34:43-35:21 (Claim 20). Claim 20 recites that its method is performed "via a cloud processing system." *Id.* In my opinion, Dr. Almeroth ignores these limitations by stating that the claims do not "actively determine the applicable settings." EX1009, ¶ 119. In my opinion, a POSITA would not ignore the limitations as Dr. Almeroth proposes, especially in light of the prosecution history, which demonstrates the meaning and importance of these limitations.

42. During prosecution, the Examiner rejected claims 1-20 in view of the *Hendrix* reference. The Applicant then made amendments to the claim to clarify their meaning and overcome the rejection. Specifically, the Applicant amended each of the independent claims 1, 10, and 20, and stated that the amendments were adding

language on “the check for compatibility of settings” to each of these claims. EX1002, 128, 192-201, 203.

43. For example, the Applicant amended claim 10 as follows:
determining, by the server, applicable settings for the selected vehicle,
the applicable settings being settings that are preferred to be set as
identified from the user profile and are compatible with settings that are
settable in the selected vehicle; and.

Id., 196.

44. The Applicant similarly amended all independent claims, claims 1, 10 and 20, to clarify “the way in which the user profile is used to enable transfer of certain vehicle settings to the vehicle.” *Id.*, 203. For example, the Applicant made clarifications to independent claims 1 and 10, “such as the determination of vehicle settings that are determined compatible.” The Applicant further stated that vehicle settings that “are identified in the user preferences of the user profile.” *Id.*, 196, 203; *see also id.*, 203 (“claim 10 was also amended to clarify the determining, by the server, of applicable settings for the selected vehicle...”). Independent “[c]laim 20[a] was also amended to recite that certain of the user settings are determined to be compatible for use with the vehicle.” *Id.*, 203; *see also id.*, 200.

45. In discussing the amendments, the Applicant stated that the clarifying amendments provide for a “check for compatibility of settings, for when user

profiles are to be transferred to vehicles.” *Id.*, 203. As the Applicant explained, the amendments to claim 10 clarified “the determining, by the server, of applicable settings for the selected vehicle,” and as claimed, “the applicable settings are settings that are preferred to be set as identified from the user profile and are **compatible** with settings that are settable in the selected vehicle.” *Id.* (emphasis in original). The Applicant provided examples from the specification (paragraphs 007 and 0075) “as examples of the check for compatibility.” *Id.*

46. Importantly, “as examples of the check for compatibility of settings,” Applicant specifically cited to paragraphs “007, 0075” of the specification. *Id.* In these paragraphs, the specification had described that a check for the compatibility settings that can detect a violation of a setting or an incompatible setting, allowing for an automatic notification to be sent to the profile administrator:

In one example, the profile is associated with a plurality of vehicle types and the method includes detecting a violation of a setting or an incompatible setting in the profile that is user defined via the user account. The method can then automatically send a notification to a predefined administrator of the profile.

Id., 37, ¶ [0007]. As another example, the specification described a transfer of profile settings, in which a user’s vehicle screen displays only those third-party

applications that are compatible with the vehicle selected, or is allowed to display to the user all applications, regardless of compatibility:

The screen displays can have various configurations, placements ... and the user can provide controls for some or all of the interfaces and controls in certain locations. The selection can be enabled for third-party applications. ... The third-party applications can be pre-identified by the site and displayed to the user if they are compatible with the particular vehicle selected. In another embodiment, the third-party applications can all be shown to the user whether or not they are compatible with the vehicle. ...

Id., 55-56, ¶ [0075]. The above-described examples are found in the '268 patent at EX1001, 1:66-2:5, 10:43-55.

47. The claims of the '268 patent therefore require the server/cloud processing system to perform a “check for compatibility of settings,” as the Applicant explained. EX1002, 203. And then the Applicant argued that the rejection failed because the *Hendrix* reference “does not teach to perform any compatibility between settings in the user profile against settings available on the specific vehicle.” *Id.*

48. The Applicant also cited to paragraph 018 of the specification to support additional claim 20 amendments. *Id.*, 203; *see also id.*, 39, ¶ [0018].

49. Based on the clarifying amendments, the Examiner withdrew the rejection and allowed the pending claims 1-20, explaining that “*Hendrix* does not teach to perform any compatibility between settings in the user profile against settings available on the specific vehicle[,]” and therefore “does not teach the transfer of user profiles to vehicles.” *Id.* In overcoming the rejection, a POSITA would recognize that the Applicant stated, and the Examiner agreed, that the amendments require a “check for compatibility” between settings in the user profile, on the one hand, and settings available on a specific vehicle, on the other.

50. It is my opinion that a POSITA, especially after reviewing the prosecution history, would understand that each of the independent claims has limitations that require the server (or processor) performing a compatibility check between settings in the user profile against settings available on the specific vehicle.

VII. SUMMARY OF CERTAIN REFERENCES

51. Below I provide a summary of certain references that are relevant to this declaration and my opinions expressed herein.

A. Xiao (EX1010)

52. U.S. Publication 2012/0164989 to Xiao (EX1010, “Xiao”) is titled “Methods and Systems for Providing a Wireless Automobile Key Service.” EX1010, cover page. Rather than being directed to user profiles, the transfer thereof, or setting settable settings for a user, Xiao is directed to “a remote ‘keyless’ entry system for

an automobile.” EX1010, ¶ [0001]. Xiao teaches “command codes” that may be retrieved, so that their associated commands may be sent to the vehicle in the user-initiated command request. *Id.* ¶ [0088]. For example, a user may submit a request, then a server looks up the command codes associated with that request before passing the associated command onto the vehicle. *Id.*, ¶ [0088] (“server may look up a particular command code 632 based on the automobile ID 628 and command ID 630 contained in a command request received from a mobile device 110...”), ¶ [0103] (“server may look up appropriate command codes 632 based on the automobile ID 627 and on the command IDs 630...”), ¶ [0103] (“server 118 may retrieve appropriate command codes 632 for these systems from automobile command information 606”). I reviewed Xiao and it does not disclose a server performing any check for compatibility of settings or any determination by a server of the compatibility between user profile settings with settings that are settable in the selected vehicle. Indeed, Xiao does not discuss “compatibility” or making any compatibility determination at all.

53. In fact, the Xiao disclosures identified by the Petition and Dr. Almeroth teach that all automobiles that a user can access are associated with the same “profile information 614”, i.e., associated with the same settings. For example, to point to alleged disclosure of claim 10[c], the Petition cites to Xiao, paragraphs [0085], [0088], [0103], [0104], [0126], and Figures 6 and 11 (Petition, 25-27).

54. Paragraph [0103] states: “For example, automobile service server 118 may look up appropriate command codes 632 based on the automobile ID 627 and on the command IDs 630 **associated with the operator’s desired system settings 614.**” EX1010, ¶ [0103] (emphasis added).

55. Paragraph [0088] of Xiao explains that its “server 118 may look up a particular command code 632 based on the automobile ID 628 and command ID 630 contained in a command request received from mobile device 110 and/or from a terminal device associated with local system 106.” EX1010, ¶ [0088]. Xiao instructs that the “automobile ID 628,” “command ID 630,” and “command code 632” are contained within the “automobile command information 606” table, shown in Figure 6, below:

AUTOMOBILE COMMAND INFORMATION			606
AUTOMOBILE ID	COMMAND ID	COMMAND CODE	632
628 —	—	—	630
—	—	—	
—	—	—	
—	—	—	

56. But Xiao’s “command ID 630” shown in the “automobile command information 606” table, above, is not shown to be part of the “operator information 602” table, as in Xiao, Figure 6, below:

OPERATOR INFORMATION					
OPERATOR ID	MOBILE ID	AUTHENTICATION INFORMATION	PROFILE INFORMATION	AUTOMOBILE PERMISSIONS	DEFAULT AUTOMOBILE ID
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

57. Therefore, based on the Xiao disclosures identified in the Petition, both the “default automobile ID 617” and all other automobiles the user can access (“automobile permissions 616”) are stored as a single record in the “operator information 602” table. This means that, in Xiao, all automobiles that a user can access are associated with the same operator “profile information 614”, i.e., associated with the same settings. Suppose a user has two automobiles, one that has AC and one that does not. Both automobiles are going to be associated with an AC setting in the profile information 614, even if one of the automobiles does not have AC.

58. In the identified disclosures of Xiao, when the server receives a command request containing an “automobile ID” and “command ID” (¶ [0088]) the server is not doing a look up in the “operator information 602” table, rather the server is doing a look up in “automobile command information 606” table to “retrieve” the “command code 632” stored in that “automobile command information 606” table. EX1010, ¶¶ [0085], [0088], Figure 6. Xiao instructs that the server “access[es]” this “automobile command information 606” table, and from this table,

it retrieves a “command” corresponding to the command ID: “[a]utomobile command information 606 may store information regarding such commands for access and retrieval by server 118.” *Id.*, ¶ [0085]. In these disclosures cited by the Petition, Xiao has no mechanism for checking if the settings in profile information 614 are in fact compatible with available (settable) settings in the automobile.

B. Hayashi (EX1013)

59. I reviewed the translation of Hayashi, Japanese publication 2012-076627, that was submitted by Petitioner as Exhibit 1013 (“Hayashi”). Hayashi is concerned with a driver that “mis-operates a vehicle he/she does not normally use.” EX1013, ¶¶ [0002], [0004]. Hayashi proposes guiding the driver with “operating instructions” for unfamiliar functions in the car. *Id.*, ¶¶ [0002], [0004], [0123], [0120], Abstract. These functions may include, for example, a shift lever, parking brake, seat adjustment function or mirror adjustment function.” *Id.*, ¶ [0120]. If a driver is unfamiliar with how to operate the vehicle’s function, Hayashi proposes providing the driver visual and audio instructions for the driver to manually follow, such as where to find and how to use the gear shift lever, and how to use the parking brake. *Id.*, ¶ [0123]. Hayashi instructs, “[f]or example, scene determination portion 212 graphically depicts the positions of a shift lever, a parking brake, or the like on display portion 250 and guides the operating method thereof by voice[,]” and “[t]he

operating method may include information such as the positions of levers, switches, and the like.” *Id.*, ¶¶ [0122]-[0123].

VIII. DETAILED ANALYSIS OF PETITION GROUNDS

60. As I describe in detail below, it is my opinion that Dr. Almeroth and the Petition fail to demonstrate any reasonable likelihood of success that any claim of the '268 patent is invalid.

A. Xiao Fails to Anticipate or Render Obvious the Challenged Claims.

61. In my opinion, Dr. Almeroth and Petitioner fail to show that Xiao anticipates or would have rendered obvious any claim of the '268 patent.

1. Xiao does not disclose or suggest the claimed compatibility determination of independent claims 10 and 20

62. Independent claim 10 requires “determining, by the server, applicable settings ... that are preferred to be set as identified in the user profile and are compatible with settings that are settable in the selected vehicle.” Independent claim 20 requires “wherein certain of the user settings are determined to be compatible for use with the vehicle.” In my opinion, Xiao does not teach or suggest these claim limitations. As such, it is my opinion that Dr. Almeroth and Petitioner fail to demonstrate that any claim would have been anticipated or obvious under Grounds 1, 3a, 4a and 5.

63. I reviewed Xiao, including the specific disclosures identified by the Petition and Dr. Almeroth, and Xiao does not teach determining compatibility or the

check for compatibility of settings that was used in prosecution as a basis to overcome the rejection. Instead, Dr. Almeroth relies on Xiao's "look up" and "retrieval" of "command codes" and Xiao's "generate command" as allegedly disclosing this functionality. In my opinion, neither Xiao's server's look up or retrieval of "command codes" nor its "generate command" teaches or discloses the server determining compatibility of settings as recited in the claim elements above.

64. The Petition and Dr. Almeroth allege that Xiao's command codes are the claims' required "applicable settings," but the challenged claims of Ground 1, 3a and 4a all define "applicable settings" as those that are determined, by a server, to be **both** preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle. EX1001, 33:1-26 (claim 10); Petition, 3. In fact, Xiao's command codes are not the recited "applicable settings," as the Petition and Dr. Almeroth allege, because these codes are simply preset, stored codes that are "look[ed] up" and "retrieve[d]" by the server from a table. EX1010, ¶¶ [0085], [0088], Figure 6. Xiao makes no such disclosure of the required "applicable settings."

65. Xiao makes no disclosure of the required server determining applicable settings, as required by the claims challenged in Ground 1, 3a, and 4a. As described above, Xiao makes clear that the command codes are stored in a table, and are merely looked up and retrieved by the server from that same table. EX1010, ¶¶ [0085],

[0088], Figure 6. There is no disclosure in Xiao of any server performing a check for compatibility of settings either before or after retrieving these command codes. More specifically, Xiao does not disclose any check for compatibility between settings that are stored in the user profile, against settings that are available on the selected vehicle, either before or after a look up or retrieval of these command codes. Therefore, these command codes cannot be the required “applicable settings” that are “determin[ed]” “by the server” to be preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle. Xiao does not teach that a server ever performs the required determining of applicable settings to be both “preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle.” Rather, Xiao’s command codes are just preset, stored codes that are stored along with the command ID and automobile ID, as shown in Figure 6 below:

AUTOMOBILE COMMAND INFORMATION			606
628 AUTOMOBILE ID	COMMAND ID	COMMAND CODE	632
—	—	—	630
—	—	—	
—	—	—	

Xiao describes command code 632 as “associated with each command that may be issued to the automobile 112.” *Id.*, ¶ [0088].

66. Also, none of the Xiao server operations cited by the Petition or Dr. Almeroth are the required server “determining” applicable settings that “are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle” / “wherein certain user settings are determined compatible for use in the vehicle.” For example, in the identified disclosures cited by the Petition and Dr. Almeroth, Xiao explains that when server 112 receives a “command request” from a mobile device or computer terminal, the “server may look up a particular command code 632 based on the automobile ID 628 and command ID 630 contained in a command request[.]” *Id.*, ¶¶ [0088], [0103]. Xiao further instructs that its server can “retrieve appropriate command codes 632” “from automobile command information 606.” *Id.*, ¶ [0103]. None of Xiao’s server operations are the check for compatibility of settings, as required by the independent claims. EX1010. In fact, none of the disclosures of Xiao is consistent with or suggests the independent claims’ recited operation of a server / cloud processing system determining compatibility of user settings against settings that are settable in the selected vehicle. EX1010.

67. In Xiao, “profile information 614”, the “default automobile ID 617” and all other automobiles the user can access (“automobile permissions 616”) are stored in a single record in the “operator Information 602” table, as shown in Figure 6 of Xiao:

608 OPERATOR ID	610 MOBILE ID	612 AUTHENTICATION INFORMATION	614 PROFILE INFORMATION	616 AUTOMOBILE PERMISSIONS	602 DEFAULT AUTOMOBILE ID
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

68. Xiao's "[o]perator ID 608 may include the name of the operator, the operator's user name for the account, a social security number of the operator, or any other information identifying the operator." EX1010, ¶ [0066]. Xiao discloses that "[u]sing the operator ID 608 [], server 118 may retrieve from operator information 602 the corresponding profile information 614 for the operator." EX1010, ¶ [0102]. A POSA would understand from those disclosures that each operator (user) in Xiao's system has a single record in the operator information table, which associates the operator's profile information (user settings) with both the default automobile ID 602 and all other automobiles the operator may access ("automobile permissions" 616). This means that, in Xiao, all automobiles that a user can access are associated with the same operator "profile information 614", i.e., associated with the same settings. Suppose a user has two automobiles, one that has AC and one that does not. If the user has a preferred setting for AC, both automobiles are going to be associated with an AC setting in the profile information 614, even if one of the automobiles does not have AC. The settings in the profile information 614 are incompatible with the vehicle that does not have AC. Xiao has no disclosures for

determining such incompatibilities. In contrast to Xiao, the 268 patent discloses that when the user profile is associated with a plurality of vehicle types, the invention can determine an incompatible setting (e.g., an AC setting preference in the user profile when a vehicle does not have AC) and can automatically send a notification to an administrator of the profile. EX1001, 1:66-2:5.

69. Claim 20 likewise requires that “certain user settings are determined to be compatible for use with the vehicle.” EX1001, 34:43-35:21 (claim 20). The cloud processing system of claim 20 determines that “certain user settings” are compatible with settings that are available on the specific vehicle. *Id.*, EX1002, 203. Therefore, Xiao’s command codes cannot be the required “certain user settings” of claim 20. *Id.*; EX1010. There is no disclosure or suggestion in Xiao of the required check for compatibility of settings, or operation to “determine[]” certain user settings are in fact compatible for use with the vehicle. *Id.*

70. As described above, during prosecution of the ’268 Patent, the Applicant provided express “examples of the check for compatibility of settings, for when user profiles are to be transferred to vehicles.” EX1002, 203. The claimed method includes, for example, “detecting a violation of a setting or an incompatible setting in the profile that is user defined via the user account. The method can then automatically send a notification to a predefined administrator of the profile.” *Id.*, 37; EX1001, 1:66-2:5. Xiao does not disclose or suggest any operation that enables

this described “detecting a violation of a setting or an incompatible setting in the profile,” such that its system “can then automatically send a notification to a predefined administrator of the profile.” *Id.*; EX1010.

71. The Petition and Dr. Almeroth allege that the “generate command” step of Xiao’s method is the recited “determining ...” operation of the recited claims. E.g., Petition, 25-27, 63-67. But the disclosures from Xiao do not teach or suggest that this generate command step includes or is consistent with a server performing the ’268 patent claims’ required check for compatibility of settings. EX1010. Xiao’s description of this “step 1108” depicted in Figure 11 does not disclose or suggest any server operation of determining compatibility between user profile settings and settings that are settable on the selected vehicle, as required by either of the challenged independent claims. E.g., EX1010, ¶¶ [0103], [0126], Figure 11; EX1001, 33:1-26, 34:43-35:21.

72. The Petition and Dr. Almeroth propose to add additional references, “Patenaude” and “Singh” in Grounds 3a and 4a, but these references also fail to disclose or suggest the required server check for compatibility of settings, and neither the Petition nor Dr. Almeroth offers any rationale or opinions to the contrary. As such, it is my opinion that Grounds 1, 3a, 4a, and 5 of the Petition all fail at least because none of the identified references discloses or suggests the recited check for compatibility of settings recited in claim elements 10[c] and 20[a].

2. **Xiao does not disclose the or suggest “receiving, at a server, information for a user profile of a user”**

73. It is further my opinion that Xiao fails to teach or disclose “receiving, at a server, information for a user profile of a user,” as in independent claim 10.

74. The Petition and Dr. Almeroth both identify Xiao’s “command request” as the claims’ recited “information for a user profile of a user” (claim 10[a]), but Xiao’s disclosure of this command request is inconsistent with, and fails to teach, the required “information for a user profile of a user.” EX1010; Petition, 19-23. As an initial matter, the Petition and Dr. Almeroth cite to Xiao’s “profile information 614” as the recited “user profile of a user” of claim 10. Petition, 19-22; EX1010, Figure 6. Xiao teaches that this “profile information 614” is stored as part of “operator information 602,” which are each depicted in Figure 6 below:

608 OPERATOR ID	610 MOBILE ID	612 AUTHENTICATION INFORMATION	614 PROFILE INFORMATION	616 AUTOMOBILE PERMISSIONS	602 DEFAULT AUTOMOBILE ID
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

75. However, Xiao does not describe or disclose its “command request” as information for or otherwise part of “profile information 614.” EX1010, ¶ [0066], Figure 6.

76. Instead, Xiao explains that a “command request” contains an automobile ID 628 and command ID 630, both of which are stored in “automobile command information 606,” as shown below. *Id.*, ¶ [0088], Figure 6:

AUTOMOBILE COMMAND INFORMATION			606
628— AUTOMOBILE ID	COMMAND ID	COMMAND CODE	632
—	—	—	630
—	—	—	
—	—	—	

77. Xiao instructs that when its server receives a command request, for example a command request to “start the engine of an automobile 112, and/or to customize the settings of one more systems of an automobile 112 based on an operator profile,” this command request contains the “automobile ID 628” and “command ID 630.” Because Xiao instructs that these “automobile ID 628” and “command ID 630” components are stored in “automobile command information 606” table, but are not stored within or as part of “operator profile information 614,” the content of the “command request” (i.e., automobile ID and command ID) are not information contained in Xiao’s “profile information 614” column. *Id.*, ¶¶ [0085], [0088], [0126], Figure 6.

78. For example, the automobile ID described in Xiao identifies the vehicle to which an operator issues a command request (*id.*, ¶¶ [0086], [0088]), and Xiao

explains that the command ID identifies a “particular automobile command” (*id.*, ¶ [0087]). Xiao does not teach or disclose either the automobile ID or the command ID as part of the “operator profile information 614.” Likewise, the automobile ID and command ID are not stored within the “profile information 614” shown below:

608 OPERATOR ID	610 MOBILE ID	612 AUTHENTICATION INFORMATION	614 PROFILE INFORMATION	616 AUTOMOBILE PERMISSIONS	602 DEFAULT AUTOMOBILE ID
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

79. Therefore, the command request, whose components are stored in automobile command information 606, is not consistent with or otherwise discloses the required “information for a user profile of a user” of claim 10[a].

80. Dr. Almeroth proposes to add additional references, “Patenaude” and “Singh” in Grounds 3a and 4a, but neither of these references discloses the required “information for a user profile of a user,” recited by claim 10[a], and neither the Petition nor Dr. Almeroth offers any opinions to the contrary. As such, it is my opinion that Grounds 1, 3a, and 4a of the Petition all fail on this basis as well.

B. Hayashi Fails to Cure the Deficiencies of Xiao.

81. For Grounds 2, 3b, 4b, and 5, the Petition and Dr. Almeroth point to a combination of Xiao and Hayashi for alleged disclosure/suggestion of the required server check for compatibility of settings. As I mentioned above, claim 10 requires

“determining, by the server, applicable settings ... that are preferred to be set as identified in the user profile and are compatible with settings that are settable in the selected vehicle.” Similarly, independent claim 20 requires “the user profile having user settings for the vehicle, wherein certain of the user settings are determined to be compatible for use with the vehicle.” As I discuss in Section VI.B above, both of these limitations require the server/cloud processing system to determine whether the user settings from the user profile are compatible against the settings that are available on the specific vehicle. And I discussed in Section VIII, Xiao does not teach, disclose or suggest this claimed functionality.

82. In my opinion, Hayashi fails to cure the deficiencies of Xiao. As an initial matter, it is my opinion that a POSITA would not have combined the two references as proposed. Moreover, even if the references could be combined, the combination would still fail to teach or suggest the claimed functionality.

1. A POSITA would not have been motivated to combine Xiao and Hayashi as Dr. Almeroth proposes

83. In my opinion, Dr. Almeroth fails to show that a POSITA would have found it obvious to combine Xiao and Hayashi as proposed. Indeed, it is my opinion that a POSITA would not have been motivated to combine the two references.

84. I disagree with Dr. Almeroth and the statements in the Petition, alleging that the Hayashi reference is analogous art and in the same field of endeavor as the

'268 Patent and Xiao. E.g., Petition, 45-50, 64-67; EX1009, ¶¶ 189-192, 241-254. As described above, Hayashi identifies a problem where a driver “mis-operates a vehicle he/she does not normally use,” such as a rental car, but it is “usually not possible for the driver to check the manual while driving.” EX1013, ¶¶ [0002], [0004]. Hayashi offers a solution to that problem by giving the driver “operating instructions” for unfamiliar functions in the automobile. *Id.*, ¶¶ [0002], [0004], [0123], [0120], Abstract. Hayashi identifies when operating methods on a vehicle, such as a rental car, are unfamiliar to the driver, then offers guidance to that driver on how to operate the vehicle’s functions. *Id.*; *id.*, ¶ [0122]. Hayashi’s solution is a “driving support apparatus,” which provides the driver with visual and audio instructions on how to use unfamiliar vehicle functions. *Id.*, ¶ [0123]. Hayashi’s solution lets the driver manually implement these instructions. *Id.*, ¶ [0123]. Hayashi gives examples of some vehicle functions for which it gives the driver instruction, such as the vehicle’s shift lever or parking brake. *id.*, ¶ [0120]. Hayashi describes the operating methods as instructions for how to use the vehicle functions, such as where to find the car’s shift lever or parking brake. *Id.*, ¶ [0122].

85. Dr. Almeroth and Toyota claim that Hayashi is “applying settings to automobiles based on user preferences” but the reference does not support this claim. Petition, 45-50, 66; EX1009, ¶¶ 188-192; EX1013. Hayashi does not mention or suggest these or related concepts like “profiles,” “settings,” or “user preferences.”

EX1013. Hayashi does not offer any teaching or suggestion about “applying settings to automobiles based on user preferences.” EX1013. Hayashi does not involve a user profile wherein the user defines settings that a user prefers to be set in a vehicle. Therefore, Hayashi is not “applying settings to automobiles based on user preferences,” as the Petition and Dr. Almeroth contend. *E.g.*, Petition, 45-50, 66.

86. Again, as described above, Hayashi’s “driving support apparatus” provides the driver with visual displays and voice guidance. That guidance instructs the driver how to manually operate unfamiliar vehicle functions. EX1013, ¶¶ [0002], [0004], [0123]. For example, Hayashi instructs the driver on how to engage a parking brake. *Id.* Therefore, the teachings of Hayashi do not pertain to “applying settings to automobiles based on user preferences,” as the Petition and Dr. Almeroth state. Petition, 45-50, 66.

87. I also disagree with the assertion that Hayashi is “pertinent to the problem” of “improving convenience in applying settings to automobiles.” Petition, 45; EX1009, ¶ 192. As described above, Hayashi does not mention or relate to user settings, or applying any user settings, and does not offer any teaching about the transfer of settings that a user prefers to be set in vehicles, e.g., as identified from a user profile. EX1013. Hayashi is not “improving convenience in applying settings to automobiles” by guiding a driver through the manual implementation of tasks

such as where to find and how to use a parking brake or shift lever. *Id.*; Petition, 45; EX1009, ¶ 192; EX1013, ¶¶ [0122]-[0123].

88. Neither the Petition nor Dr. Almeroth identifies any disclosure in either Xiao or Hayashi that would suggest to a person of ordinary skill in the art to seek out the other reference to solve the problem of automatically transferring user preferred settings that are compatible with settable settings on the vehicle. While both the Petition and Dr. Almeroth contend that Xiao's server should "not attempt to command vehicles to do things they cannot do, potentially resulting in unexpected and/or undesired vehicle configurations or errors" (Petition, 46; EX1009, ¶190), there is no disclosure in Xiao which states or suggests this concern. Similarly, neither the Petition nor Dr. Almeroth identifies any suggestion from the prior art to change the database of command information in Xiao, or to change the database of operating methods in Hayashi, such that a person of ordinary skill in the art would be led to the tables that have been created and reproduced in the Petition and Dr. Almeroth's declaration. Petition, 48, 66; EX1009, ¶¶ 195-196, 247-254.

89. The Petition fails to show, therefore, that a POSITA would ever combine Hayashi with Xiao, as they are not analogous art or in the same field of endeavor.

2. **Even if Hayashi was properly combinable, it does not teach or suggest Xiao's failures**

90. Even if the references were properly combined, it is my opinion that Hayashi would nevertheless fail to cure the deficient disclosures and teachings of Xiao. With respect to the “receiving, at a server, information for a user profile of a user” limitation, Dr. Almeroth offers no opinion that Hayashi cures Xiao's deficiencies.

91. Instead, Dr. Almeroth relies on Hayashi in an attempt to cure the compatibility determination limitations of claims 10 and 20. It is my opinion that Dr. Almeroth is incorrect, as Hayashi (or the Xiao/Hayashi combination) fails to teach or suggest those limitations.

92. As I discussed above, the challenged claims require a server to determine compatibility between user settings from the user profile against settings that are settable on the specific vehicle. For example, as taught by the '268 Patent, this check for compatibility can “detect[] a violation of a setting or an incompatible setting in the profile,” enabling the administrator of the profile to receive an automatic notification of this incompatibility. EX1001, 1:66-2:5. But Hayashi never mentions or suggests user profile settings or settings that are settable in a vehicle, or even any concept related to the transfer of user profiles onto vehicles. There is likewise no teaching or suggestion in Hayashi that its server performs a check for

compatibility between user profile settings against settings available on the specific vehicle. EX1013.

93. The Petition and Dr. Almeroth use the term “compatibility determination” to describe Hayashi and its alleged disclosures, but because Hayashi does not involve user settings or settable settings, it cannot and does not teach concepts pertaining to a compatibility check between these user settings and settable settings, i.e., for when user profiles are to be transferred to vehicles. EX1013; EX1002, 203. For example, even though the Petition and Dr. Almeroth both point to Hayashi’s “database of operating methods according to vehicle model 134,” illustrated in Figure 6, as “demonstrate[ing] the concept of compatibility determination” (Petition, 47 (citing EX1013, ¶ [0029], Fig. 6); EX1009, ¶ 195), this database 134 does not relate at all to user settings. EX1013, Figure 6. In fact, database 134 shows operating methods according to vehicle model, e.g., how a driver can engage a parking brake according to vehicle model α , β or γ , or where on the car a driver can find the shift lever in vehicle model α , β or γ . EX1013, Fig. 6; *see id.*, ¶¶ [0029], [0122]-[0123]. Hayashi isn’t concerned with or teaching about settings of a user profile or settable settings in a vehicle. EX1013. As noted above, because Hayashi does not mention or suggest any user-preferred settings, it is not concerned with applying those settings to vehicles, nor is there any teaching or

suggestion about whether such non-disclosed user settings are in fact compatible with what settings are available on the vehicle. EX1013.

94. Hayashi's solution is to instruct the driver where to find or how to operate an unfamiliar vehicle function, like a shift lever. EX1013, ¶¶ [0122]-[0123]. Hayashi's solution instructs the driver, but leaves it to the driver to manually implement those instructions. *Id.*

95. Hayashi does not disclose an on-board vehicle system for controlling the vehicle settings. Hayashi's on-board device includes a controller for communicating with the server to receive information ("Vehicle information acquisition processing portion") and determining the differences between manual operation of vehicle functions ("Scene determination portion"). EX1013, Figure 7, ¶¶[0031]-[0035]. Hayashi has no mechanism for digitally controlling the settings of the vehicle (e.g., start the engine, turn on the AC, change the radio station, etc.), because it is concerned with providing guidance to the driver for manually operating the vehicle and not with effecting user-desired settings in the vehicle.

96. The Petition and Dr. Almeroth propose a combination that a person of ordinary skill in the art would not make: the Petition modifies Xiao's table, "automobile command information 606," containing commands that are executed by on-board vehicle systems (Petition, 48, 67; EX1010, ¶ [0088]), with Hayashi's operating methods to instruct a person how they can manually operate certain vehicle

functions (Petition, 48, 67; EX1013, ¶¶ [0004], [0029], [0122], [0123]). And even if a person of ordinary skill in the art were motivated to combine Xiao's vehicle-implemented commands with the manual, driver-implemented instructions, this combination would not result in a method capable of automatically transferring user profile settings to vehicles that are determined to be compatible with settings that are settable on the vehicle. EX1010; EX1013.

C. The Additional References Do Not Cure the Deficiencies of Xiao or the Xiao/Hayashi Proposed Combination.

97. In my opinion, the additional references that Dr. Almeroth proposes to combine with Xiao or Xiao and Hayashi do not cure any of the deficiencies I identified above. While Dr. Almeroth proposes to add "Patenaude" or "Singh" to Xiao and/or Xiao/Hayashi, he does so in an attempt to show that other limitations would have been obvious. Neither "Patenaude" nor "Singh" (or both together) cure the deficiencies that I discuss herein, and Dr. Almeroth offers no opinion to the contrary. It is therefore my opinion that every ground fails and there is no likelihood of success that any challenged claim is anticipated or obvious.

IX. CONCLUSION

98. This declaration reflects my opinions as currently held. However, my analysis may continue such that I may consider additional information that may result in additional observations.

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

Executed this 24th day of July, 2024, at Irvine, California.

A handwritten signature in cursive script, appearing to read "Sam Malek", written in black ink.

Dr. Sam Malek