# UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD CISCO SYSTEMS, INC., Petitioner v. ESTECH SYSTEMS, INC., Patent Owner Case IPR2021-00329 U.S. Patent No. 8,391,298

# EXPERT DECLARATION OF SHUKRI J. SOURI, PH.D.



# I. INTRODUCTION

- 1. Exponent, Inc. ("Exponent") has been retained by K&L Gates, LLP ("K&L Gates") on behalf of Cisco System, Inc. ("Cisco") to provide technical services and independent opinions on certain issues relating to the accompanying petition for *Inter Partes* Review ("IPR") of United States patent no. 8,391,298 ("the '298 patent"). At the request of K&L Gates, Exponent investigated specific issues relevant to this matter.
- 2. In particular, I, Shukri Souri, was requested to review the subject material of the '298 patent, along with certain of the claims therein, and opine as to whether the requirements of these claims are disclosed by various prior art references. The opinions and comments formulated during this assessment are based on observations and information available at the time of the investigation. The findings presented herein are made to a reasonable degree of scientific certainty. I have made every effort to accurately and completely investigate all areas of concern identified during our investigation. I reserve the right to supplement this declaration if and when new information becomes available after this declaration is signed, including, but not limited to, additional discovery or documents, opinions of the court, and the opinions and testimony of other experts in this case. I reserve the right to respond to any opinions offered by other experts and to any testimony offered at trial. And, I reserve the right to create graphics or demonstratives to support my opinions if called to testify at a hearing.

### II. EXPERIENCE

3. I am a salaried employee of Exponent. Exponent charges \$650 per hour for my time plus expenses for work performed in connection with this project. I have received no additional compensation for work in this case, and my compensation does not depend upon the contents of this declaration, any testimony I may provide, or the ultimate outcome of the case.



- 4. Exponent is an engineering and science consulting firm headquartered at 149 Commonwealth Drive, Menlo Park, California, 94025. Exponent has been retained by counsel for Cisco in this matter to provide independent technical expert consulting services. I, Shukri Souri, am the investigator for the subject matter in this declaration.
- 5. I am a Principal and a Corporate Vice President at Exponent. I am based in, and Director of, Exponent's New York office. I am also the Director of Exponent's Electrical Engineering and Computer Science practice.
- 6. I received my B.A. (Honors) and M.A. in Engineering Science from Oxford University, United Kingdom; my Master's degree in Electrical Engineering from Stanford University, California; and my Ph.D. in Electrical Engineering, also from Stanford University, California.
- 7. Before returning to Stanford for my Ph.D., I was a member of the staff at Raychem's Corporate Research and Development Laboratories, where I designed and built electronic systems to target safe operation of commercial and industrial equipment. My work resulted in patents awarded by the United States, European, Japanese, and World Intellectual Property Organization patent offices.
- 8. Prior to Exponent, I co-founded two software firms, arcadiaOne, Inc. ("arcadiaOne") and Merenga, Inc., where I directed development teams and contributed to architecture and design, source code development, testing, and deployment of enterprise-level software. At arcadiaOne, I was an Engineering Manager with responsibilities for the development of software for the synchronous transfer of digital assets between enterprises, such as from content providers to content portals over arcadiaOne's real-time messaging platform. At Merenga, Inc., I was Chief Executive Officer and President with responsibilities for the firm's operations in delivering an Internet platform for the optimization of asset allocation to investors.



- 9. I have also worked with government institutions to advise on technological investigations and challenges. In 2012, I was selected to participate in a United States National Academy of Engineering Frontiers of Engineering Symposium to help address future technological challenges facing society. In 2010, I advised members of the United States Congress in their Investigation into Instances of Sudden Unintended Acceleration in Toyota Made Vehicles, as instituted by the Committee on Energy and Commerce in the House of Representatives. I led Exponent's computer systems and software investigation of Toyota vehicles allegedly experiencing unintended acceleration.
- 10. My experience with telephony, Internet communications technologies, messaging platforms, and software development spans over 25 years, during which time I have worked on telecommunications equipment, computer systems for real-time messaging, and software systems for Internet communications, including quantitative information and rich media streaming such as audio and video. My focus has been on the reliability and safety of such software systems, particularly as it relates to precision, accuracy, and robustness. Often, these are complex systems with integration challenges and involving fault tolerance.
- 11. My knowledge of programming languages includes C, C++, Java, Matlab, Python, Fortran, APL, and HP-BASIC, among others. I am currently a Senior Member of the Institute of Electrical and Electronics Engineers ("IEEE") and a Member of the Institution of Engineering and Technology in the United Kingdom.
- 12. Additional details about my background and expertise, including publications, are further described in my professional resume, which is attached as Appendix A to this declaration.
- 13. Materials I have considered in relation to this declaration include the '298 patent and associated prosecution history, the prior art references relied upon within this declaration, and



other cited documents as indicated in footnotes. In forming my opinions, I have relied upon my education, knowledge of telecommunications and associated networking technology, and related experience.

## III. LEGAL STANDARDS

- 14. It is my understanding that there are two ways that prior art references can render a patent claim unpatentable: anticipation and obviousness. Counsel has informed me that the petitioner has the burden in an IPR, such as this matter, to show unpatentability by a preponderance of the evidence. Counsel has told me that a preponderance of the evidence means more likely than not.
- 15. I understand that there is a set process to determine anticipation, as follows: 1) the claims of a patent are properly construed, and 2) the claim language is then compared to the prior art on a limitation-by-limitation basis. If the prior art references contain all the elements of the claim language (explicitly or inherently), arranged as in the claims, that is considered anticipation.
- 16. I understand that an invention is obvious when the differences between the subject matter sought to be patented 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 of ordinary skill in the art ("POSITA"). For this reason, I have been asked to consider the level of ordinary skill in the field that someone would have had at the time of the claimed invention.
- 17. Counsel instructed me that in an obviousness determination the factors to consider are: 1) the scope and content of the prior art, 2) the differences between the prior art and the asserted claims, 3) the level of ordinary skill in the pertinent art, and 4) the existence of secondary considerations of non-obviousness. Secondary considerations include: a long-felt need; commercial success; unexpected results; praise of the invention; licensing; copying; failure of others; and skepticism by experts. At this point, I have not considered any evidence of secondary



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