### IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION

RFCyber CORP.,	)
Plaintiff,	) )
v.	)
VISA U.S.A. Inc.,	)
Defendant.	)
	)
	ý

CASE NO.: 6:22-cv-00697-ADA

JURY TRIAL DEMANDED

### DECLARATION OF MICHAEL SHAMOS, PH.D., IN SUPPORT OF DEFENDANT'S OPENING CLAIM CONSTRUCTION BRIEF

I, Michael Ian Shamos, Ph.D., do hereby declare as follows under penalty of perjury under the laws of Texas and the United States:

### I. INTRODUCTION

1. My name is Michael Shamos. I have been retained as an expert witness by Defendant Visa U.S.A. Inc. ("Visa" or "Defendant") in this matter.

2. I have been asked to opine on the meaning of certain terms used in the asserted claims of U.S. Patents 8,118,218 (the "218 Patent"); 8,448,855 (the "855 Patent"); 9,189,787 (the "787 Patent"); and 9,240,009 (the "009 Patent") (collectively, the "Patents").

3. This Declaration contains statements of my opinions formed in this case 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. QUALIFICATIONS

4. This section summarizes my educational background, career history, publications, and other relevant qualifications. My curriculum vitae is attached as Appendix A, which includes my detailed employment background, professional experience, and list of publications.

5. I have an A.B. degree from Princeton University in Physics, an M.A. degree from Vassar College in Physics, an M.S. degree from American University in Technology of Management, an M.S. degree from Yale University in Computer Science, an M. Phil. from Yale University in Computer Science, and a J.D. degree from Duquesne University.

6. I currently hold the title of Distinguished Career Professor in the School of Computer Science at Carnegie Mellon University in Pittsburgh, Pennsylvania. I am a member of two departments in that School, the Software and Societal Systems Department and the Language Technologies Institute. I was a founder and Co-Director of the Institute for eCommerce at Carnegie Mellon from 1998-2004 and from 2004-2018 have been Director of the eBusiness Technology graduate program in the Carnegie Mellon University School of Computer Science. Since 2018, I have been Director of the M.S. in Artificial Intelligence and Innovation degree program at Carnegie Mellon.

7. I have taught graduate courses at Carnegie Mellon in Electronic Commerce, including eCommerce Technology, Electronic Payment Systems, Electronic Voting, Internet of Things, Ubiquitous Computing, Electronic Payment Systems and eCommerce Law and Regulation, as well as Analysis of Algorithms. Since 2007, I have taught an annual course in Law of Computer Technology. I currently also teach Artificial Intelligence and Future Markets.

8. I am the author and lecturer in a 24-hour video course on Internet protocols and have taught computer networking, wireless communication, and Internet architecture since 1999.

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9. From 2001-2021, I was a Visiting Professor at the University of Hong Kong, where I taught an annual course in Electronic Payment Systems. This is one of only a handful of graduate courses taught on this subject in the world.

10. I was the Director of Carnegie Mellon's graduate degree program in eBusiness Technology from 1999-2018 and am now a faculty member in the Privacy Engineering degree program at Carnegie Mellon. My course on Law of Computer Technology is required for all students in that program.

11. I am a named inventor on the following six issued patents relating to electronic commerce: U.S. Patent Nos. 7,330,839; 7,421,278; 7,747,465; 8,195,197; 8,280,773; and 9,465,299.

12. From 1979-1987 I was the founder and president of two computer software development companies in Pittsburgh, Pennsylvania, Unilogic, Ltd. and Lexeme Corporation.

13. I am an attorney admitted to practice in Pennsylvania and have been admitted to the Bar of the U.S. Patent and Trademark Office since 1981. I have been asked to render opinions in this Declaration as a technical expert. I have not been asked to offer any opinions on patent law in this proceeding.

14. I have previously served as an expert in over 360 cases concerning computer technology. In particular, I have been involved in at least 35 cases involving electronic payment systems.

### **III. COMPENSATION**

15. I am being compensated for my work in this case at the rate of \$600 per hour. I am also reimbursed for all reasonable expenses that I incur during the course of this case. My compensation does not depend upon the results of my analysis or the substance of my testimony, nor does my compensation depend on the outcome of this or any related proceeding. I have no

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personal interest in the outcome of this matter. I have no financial interest in RFCyber Corp. ("Patent Owner") or affiliation with any of parties in interest, the Patent Owner or the inventors of the Patents. It is conceivable that I may own mutual funds whose portfolios include stock in Defendant's affiliate Visa, Inc. If this is the case, the value of such holding would not constitute a material part of my net worth.

16. The statements made and opinions provided in this Declaration are based on my own personal knowledge and experience.

17. In this Declaration, all emphasis in **boldface** has been added unless otherwise noted.

### IV. RELEVANT LEGAL PRINCIPLES

18. I have been informed by counsel for Visa that the following principles of law are applicable to claim construction, and I have applied these principles in my analysis.

19. The claims of a patent define the limits of the patentee's exclusive rights. In order to determine the scope of the claimed invention, courts may construe (or define) claim terms when the meanings are disputed by the parties.

20. Claim terms should generally be given their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention after reading the patent and its prosecution history.

21. Claims must be construed, however, in light of, and consistent with, the patent's intrinsic evidence. Intrinsic evidence includes the claims themselves, the written disclosure in the patent's specification, and the patent's prosecution history, including the prior art that was considered by the United States Patent and Trademark Office ("PTO").

22. The language of the claims helps guide the construction of claim terms. The context in which a term is used in the claims can be highly instructive.

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23. The specification of the patent is the best guide to the meaning of a disputed claim term, beyond the wording of the claims themselves. Embodiments disclosed in the specification help teach and enable those of skill in the art to make and use the invention, and are helpful to understanding the meaning of claim terms. Nevertheless, in many cases, the limitations of preferred embodiments and examples appearing in the specification should not be read into the claims.

24. In the specification, a patentee may also define his own terms, give a claim term a different meaning than it would otherwise possess, or disclaim or disavow claim scope. A court may generally presume that a claim term possesses its ordinary meaning. This presumption, however, does not arise when the patentee acts as his own lexicographer by explicitly defining or re-defining a claim term. This presumption of ordinary meaning can also be overcome by statements, in the specification or prosecution history of the patent, of clear disclaimer or disavowal of a particular claim scope.

25. The specification may also resolve any ambiguity if the ordinary and customary meaning of a claim term lacks sufficient clarity to permit the scope of the claim to be ascertained from the words of the claim alone.

26. The prosecution history can be another important source of evidence in the claim construction analysis. The prosecution history is the record of the proceedings before the PTO, including communications between the patentee and the PTO. The prosecution history can inform the meaning of the claim language by demonstrating how the patentee and the PTO understood the invention and whether the patentee limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be. A patentee may also define a term during the prosecution of the patent. The patentee is precluded from recapturing through claim

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