UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DIRECTV, LLC,
Petitioner,

v.

ENTROPIC COMMUNICATIONS, LLC,
Patent Owner.

Case No. IPR2024-01063
U.S. Patent No. 8,320,566

SUPPLEMENTAL DECLARATION OF TIM A. WILLIAMS, PH.D. IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 8,320,566

I. INTRODUCTION

1. I have been retained by Petitioner DIRECTV, LLC to provide this supplemental declaration in connection with a petition for *inter partes* review of U.S. Patent No. 8,320,566 ("'566 patent").

2. Specifically, I was asked to review my previously submitted declaration for *DISH Network LLC v. Entropic Communications, LLC*, IPR2024-00555 ("the DISH IPR"), which is referred to in this proceeding as EX-1004, and to determine whether I still agree with the facts, analysis, and conclusions I expressed in that declaration.

3. My compensation in this matter is not based on the substance of my opinions or the outcome of this matter. I have no financial interest in Petitioner. My hourly rate for this engagement is $700.

II. INFORMATION CONSIDERED

4. I understand that each "EX-" exhibit in this proceeding that shares the same exhibit number as a corresponding "DISH-" exhibit in the DISH IPR refers to the same document. For example, "EX-1001" in this proceeding and "DISH-1001" in the DISH IPR are both the '566 patent.

5. In drafting this declaration, I relied on my years of education, research, and industry and academic experience, including my direct experience and contribution in the area of wireless communications and telecom technology. I also

considered my declaration in the DISH IPR (EX-1004) and the materials cited therein.

6. I reserve the right to rely upon these materials and other materials to rebut arguments raised by the Patent Owner. I further reserve the right to supplement this declaration in response to additional evidence that may become known during this proceeding.

7. In connection with any testimony I may be asked to give to the Patent Trial and Appeal Board, I may use as exhibits various documents that relate to matters set forth in this declaration and my original declaration (EX-1004).

III. OPINIONS

8. After considering the evidence in the DISH IPR and the present proceeding, I maintain and agree with the facts, analysis, and conclusions set forth in EX-1004.

9. I declare 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 the 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.

Respectfully submitted,

Date: June 27, 2024

By: Tim Arthur Williams
Tim A. Williams, Ph.D.