UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

UNILOC 2017 LLC,
Patent Owner

U.S. Patent No. 8,018,877

Inter Partes Review No.: IPR2019-00701

**DECLARATION OF DR. HENRY H. HOUH
IN SUPPORT OF PETITIONER'S REPLY TO
PATENT OWNER'S RESPONSE TO PETITION**

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EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 8,018,877 to Lin
1002	Declaration of Dr. Henry Houh
1003	File History of U.S. Pat. No. 8,018,877 to Lin
1004	File History of U.S. Pat. No. 7,961,663 to Lin
1005	U.S. Pat. No. 6,699,125 ("**Kirmse**")
1006	U.S. Pat. App. Pub. No. US 2003/0142654 ("**Chambers**")
1007	European Pat. App. Pub. EP 1 385 323 A1 ("**Cordenier**")
1008	Complaint for Patent Infringement dated February 22, 2018 ("**Uniloc Complaint**")
1009	*Declaration* by Alexa Morris with the exhibit "draft-rosenberg-midcom-turn-00.txt", *Traversal Using Relay NAT* ("**TURN**")
1010	*Declaration of Sandy Ginoza for IETF RFC 793: Transmission Control Protocol* with the exhibit, RFC 793, "Transmission Control Protocol" ("**RFC793**")
1011	U.S. Pat. App. Pub. No. 2003/0217174 ("**Dorenbosch**")
1012	U.S. Patent No. 7,961,663 to Lin ("**663 Patent**")
1013	*Declaration of Sandy Ginoza for IETF RFC 3103: Realm Specific IP: Protocol Specification* with exhibit, RFC 3103, "Realm Specific IP: Protocol Specification" ("**RSIP**")
1014	Certified Translation and Original of European Pat. App. Pub. EP 1 009 153 A1 ("**Alos**")
1015	*Declaration* by Alexa Morris with the exhibit "draft-rosenberg-sipping-ice-00.txt," Interactive Connectivity Establishment (ICE): A Methodology for Network Address Translator (NAT) Traversal for the Session Initiation Protocol (SIP) ("**ICE**")
1016	U.S. Patent No. 7,969,925 to Lin ("**925 Patent**")
1017	*Declaration of Sandy Ginoza for IETF RFC 1918: Address Allocation for Private Internets* with exhibit, RFC 1918, "Address Allocation for Private Internets" ("**NAT**")
1018	U.S. Patent No. 8,539,552 ("**Grabelsky**")
1019	*Declaration of Sandy Ginoza for IETF RFC 3489: STUN - Simple*

Exhibit No.	Description
	Traversal of User Datagram Protocol (UDP) Through Network Address Translators (NATs) with the exhibit, RFC 3489, "STUN - Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators (NATs)" ("**STUN**")
1020	January 3, 2011 Amendment and Response to Office Action from file history of U.S. Pat. No. 7,969,925 to Lin
1021	U.S. Pat. App. No. 10/817,994 to Lin
1022	U.S. Pat. App. No. 10/935,342 to Lin
1023	U.S. Pat. App. No. 11/042,620 to Lin
1024	*Declaration of Sandy Ginoza for IETF RFC 2026: The Internet Standards Process – Revision 3* with the exhibit, RFC 2026: "The Internet Standards Process – Revision 3" ("**Internet Standards Process**")
1025	Declaration of Dr. Henry H. Houh In Support of Petitioner's Reply to Patent Owner's Response to Petition
1026	Merriam-Webster's Collegiate Dictionary, 10th Ed., (2002) definition of "allocate"

I, Dr. Henry H. Houh, do hereby declare:

I.   INTRODUCTION

1.   As I discussed in my declaration dated February 22, 2019 that I provided for the Petition in this proceeding (Ex. 1002), I have been retained as an expert witness on behalf of petitioner Apple Inc. ("Apple") for the above-captioned Petition for *Inter Partes* Review ("IPR") of U.S. Patent No. 8,018,877 ("877 patent"). I am being compensated for my time in connection with this IPR at my standard consulting rate of $620 per hour. My compensation is in no way dependent on the outcome of this matter.

II.   BACKGROUND AND QUALIFICATION

2.   Section II of my prior declaration (Ex. 1002, ¶¶7-25) states my background and expertise that qualify me as an expert in the technical issues in this case. There are no relevant updates to that background or expertise.

III.   MATERIALS CONSIDERED FOR THIS DECLARATION

3.   In addition to my general knowledge, education, and experience, and the prior art publications I listed in paragraphs 7 through 25 of Exhibit 1002, I considered the materials filed in this proceeding and the materials listed in the Exhibit List above in forming my opinions.

IV.   UNDERSTANDING OF THE LAW

4.   Paragraphs 27 through 32 of Exhibit 1002 state the legal principles that Apple counsel explained to me and on which I rely.

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