UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTEL CORPORATION,

Petitioner,

v.

AX Wireless, LLC,

Patent Owner.

IPR2023-01138

Patent No. 10,554,459

SUPPLEMENTAL DECLARATION OF JAMES L. LANSFORD, PH.D.

Mail Stop **PATENT BOARD**
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

INTEL - 1047
Intel Corp. v. AX Wireless, LLC, IPR2023-01138

I, James L. Lansford, do hereby declare the following:

1. I submit this Supplemental Declaration at the request of Intel Corporation for consideration by the Patent Trial and Appeal Board in *Inter partes* review proceedings.

2. I reside in Florissant, Colorado.

3. I am over eighteen years of age, and I would otherwise be competent to testify as to matters set forth herein if I am called upon to do so.

4. I am being compensated for my time at my standard consulting rate. I am also being reimbursed for expenses that I incur during the course of this work. My compensation is not contingent upon the results of my study and analysis, the substance of my testimony, or the outcome of any proceeding involving the challenged patent or patents. I have no financial interest in the outcome of this matter or in any litigation involving the challenged patent or patents.

5. I understand that my original declaration was submitted as Exhibit 1007 in this proceeding ("Exhibit 1007 Declaration"). The Exhibit 1007 Declaration outlines my participation in IEEE 802 for the past 25-plus years. It also highlights my work at a series of companies that have developed 802.11 products.

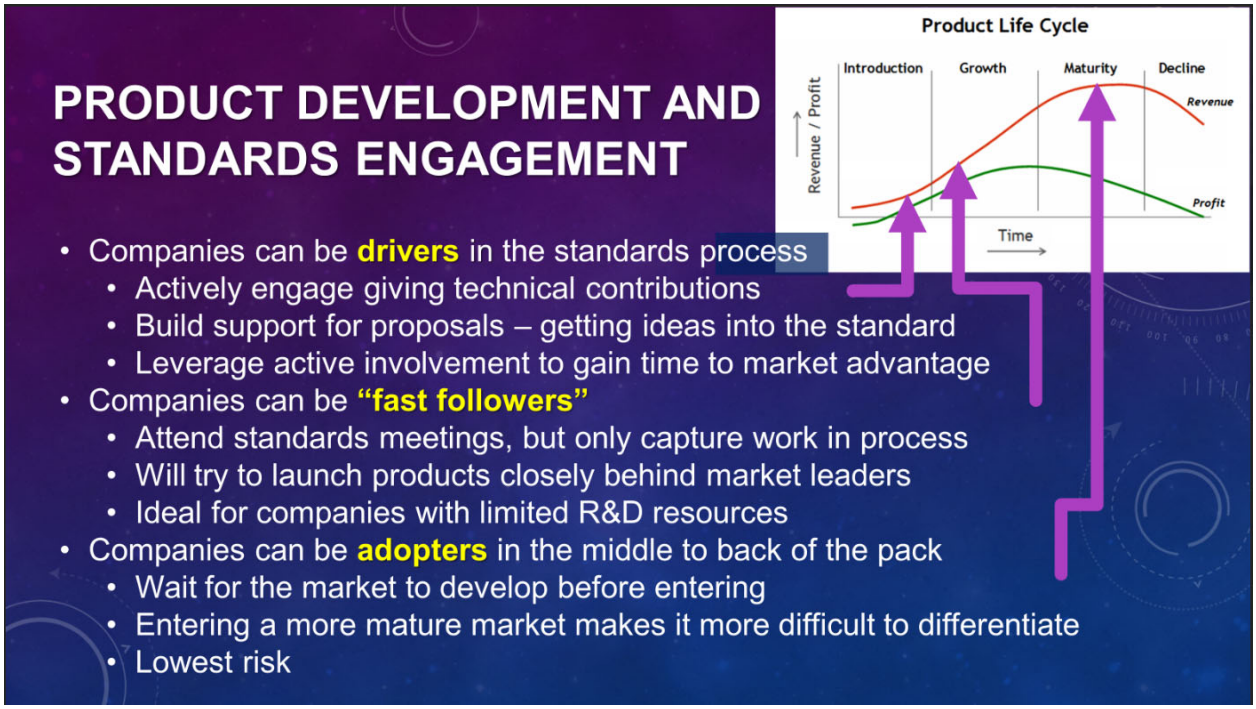
6. In my role as Chief Technical Officer and Vice President of Business Development at Mobilian Corporation from February 2000 through November

2003, I was heavily involved in the IEEE task group working on 802.11g. I monitored all that was going on with submissions to the task group and (together with my team) pushed our own recommendations for incorporation into the standard. As the standard began to take shape, but still years before 802.11g was adopted as final, Mobilian was already underway in designing integrated circuit devices with the features appearing in the proposed submissions and drafts of what would eventually become the 802.11g standard.

7. Mobilian was not unique in pursuing product design before finalization of the next 802.11 standard. Mobilian's integrated circuit product competitors, mobile phone suppliers, computer makers, access point vendors, and others across the industry also paid close attention to the evolution of standards and launched product design efforts long before a standard's completion. Given the lengthy multi-year design cycle required for wireless integrated circuits, monitoring standard developments and launching early product work was essential to remaining competitive in this industry.

8. I have observed the same pattern in the wireless networking industry in the years since my time working with the 802.11g standard development, including during the 2005 to 2010 time frame (and beyond). Industry participants have long tracked proposals and drafts submitted to task groups working on next generation 802.11 standards to identify features and functionality to include in

their products that are planned for launch near the end of the standardization process. Given the extended design time required, industry participants cannot wait for the ratification and publication of standards to be complete and expect to have timely competitive products. I have taught courses covering this concept to industry groups and at university over the years. Below is a slide from a presentation I used to teach the IEEE's MOOC (Massive Open On-line Course) entitled "Innovation and Competition: Succeeding through Global Standards." The slide highlights the importance to product companies of paying attention to and participating in the standards process.



9. From November 2003 to February 2010, I served as Chief Technology Officer of Alereon, Inc. and had responsibility for the company's standards strategy and participation. During that time, as noted in the Exhibit 1007 Declaration, I co-chaired the IEEE 802.15.3a Task Group, which held meetings at the same time and in the same locations as the Task Group for 802.11n. Because 802.11 was viewed as a technology threat to 802.15 (which relates to Wireless Personal Area Networks), I paid attention to the discussions and proposals for 802.11n and attended many of the 802.11n meetings since they were co-located. In the 2005 time frame, the dueling proposals from the industry consortia "WWiSE" and "TGN Sync" were publicly available from the IEEE website as explained in paragraphs 22 to 32 of my Exhibit 1007 Declaration and were widely discussed in wireless networking industry circles.

10. I understand that the July 2005 WWiSE proposal attached to my Exhibit 1007 Declaration as Appendix E has been submitted as Exhibit 1006 and that the competing January 2005 TGn Sync proposal attached to the declaration as Appendix R has been submitted as Exhibit 1012. The proposals list large cross sections of wireless networking industry participants as joint contributors or authors. The table below presents the companies or organizations of the listed joint contributors and authors in Exhibits 1006 and 1012, respectively. I was familiar with these companies and organizations at the time. They comprise a

solid majority of the product companies that were developing and supplying integrated circuits for Wi-Fi in the 2005 time frame as well as the leading networking equipment suppliers at that time.

WWiSE	TGN Sync
Ralink (wireless LAN chipsets)	Intel (wireless LAN chipsets)
Winbond (integrated circuits)	Nortel (networking equipment)
TrellisWare (radio technology)	Cisco (networking equipment)
Realtek (wireless LAN chipsets)	Samsung (mobile phones, computers)
Texas Instruments (wireless LAN chipsets)	Toshiba (networking equipment, computers)
STMicroelectronics (wireless LAN chipsets	Atheros Communications (wireless LAN chipsets)
Motorola (mobile phones, networking equipment)	Marvell (wireless LAN chipsets)
Broadcom (wireless LAN chipsets)	Agere (networking equipment)
Airgo Networks (wireless LAN chipsets)	Nokia (mobile phones and networking equipment)
Conexant (wireless LAN chipsets)	Philips (wireless LAN chipsets)
Buffalo (networking equipment)	Sanyo (networking equipment)
ETRI (government research organization)	Sony (computers, mobile phones)
Bermai (wireless LAN chipsets)	
Nokia (mobile phones and networking equipment)	
NTT (mobile phones, telecommunications)	

11. My Exhibit 1007 Declaration explains how the IEEE moved its publicly-accessible archive of 802.11 records to the Mentor website in mid-2007. During the time period 2007-2010, the July 2005 WWiSE Proposal (Exhibit 1006) was publicly available on the IEEE Mentor website. During that period, I can

confirm that Mentor had the search and extraction features I describe in paragraphs 22-32 of my Exhibit 1007 Declaration.

I hereby declare that all the statements made in this Declaration are of my own knowledge and true; 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 18. U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on ___March 14, 2024_____ in __Denver, Colorado_____

James L. Lansford, Ph.D.