

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

MPH TECHNOLOGIES OY,
Patent Owner.

Case IPR2019-00820
Patent 7,937,581

EXHIBIT 2009

DECLARATION OF PROFESSOR GEORGE N. ROUSKAS, PH.D.

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. QUALIFICATIONS.....	1
III. BASES OF OPINIONS	6
IV. APPLICABLE LEGAL STANDARDS.....	8
A. Ordinary Skill in the Art.....	8
B. Claim Construction.....	10
C. Obviousness (35 U.S.C. § 103).....	10
V. OVERVIEW OF THE '581 PATENT AND THE STATE OF THE ART AT THE TIME OF THE INVENTION.....	14
A. Technical Background.....	15
B. The Mobility Problem Addressed by the '581 Patent.....	21
C. The '581 Patent's Solution to the Mobility Problem	23
VI. CLAIM CONSTRUCTION.....	28
VII. CLAIMS 1 AND 9 ARE PATENTABLE OVER THE COMBINATION OF ISHIYAMA AND MURAKAWA (GROUND 1) 42	
A. Overview of Ishiyama	42
B. The Petition Fails to Establish that the Prior Art Teaches the "Security Gateway" in "At Least One Mobile Terminal and Another Terminal and a Security Gateway Therebetween" and Other Limitations	49
1. Multiple Publications from the Relevant Timeframe Confirm that a Correspondent Host is Not a Security Gateway.....	52

2.	Ishiyama’s Correspondent Host is Demonstrably Not a Security Gateway Because it is an End System with a Single Communication Interface	54
3.	Ishiyama’s Description of the IPSec Processing Using the Security Databases Proves that the Correspondent Host is not a Security Gateway	55
4.	Petitioner’s Theory that the Correspondent Host Must be a Security Gateway Because IPSec Tunnel Mode is Used is Incorrect	57
5.	Petitioner’s Argument in this Proceeding that the Correspondent Host is a Security Gateway is Contradicted by the Position Taken in IPR2019-00821	66
C.	The Petition Fails to Establish that the Prior Art Discloses the “Other Terminal” in “At Least One Mobile Terminal and Another Terminal and a Security Gateway Therebetween” and Other Limitations	69
D.	The Petition Fails to Establish that the Prior Art Teaches “While at the Second Address, the Mobile Terminal Sending a Request Message to the Gateway Address of the Security Gateway to Request the Security Gateway to Change the Secure Connection to Be Defined Between the Second Address and the Gateway Address of the Security Gateway”	77
E.	The Petition Fails to Establish that the Prior Art Teaches the “Mobile Terminal Sending a Secure Message . . . From the Second Address of the Mobile Terminal to the Other Terminal via the Security Gateway”	78
F.	Claim 9 Is Not Unpatentable Over the Combination of Ishiyama and Murakawa	83
VIII.	CLAIM 4 IS PATENTABLE OVER THE COMBINATION OF ISHIYAMA AND MURAKAWA (GROUND 1) BECAUSE THE PETITION FAILS TO ESTABLISH THAT THE PRIOR ART TEACHES THE “REQUEST MESSAGE AND/OR A REPLY MESSAGE IS ENCRYPTED AND/OR AUTHENTICATED”	88

IX.	CLAIMS 3 AND 5 ARE PATENTABLE OVER THE COMBINATION OF ISHIYAMA, MURAKAWA AND AHONEN (GROUND 2).....	91
A.	Overview of Ahonen.....	92
B.	The Combination of Ishiyama, Murakawa and Ahonen Fails to Teach Sending a “Reply Back to the Mobile Terminal . . . From the Security Gateway” (Claim 3) or a “Reply Message to the Mobile Terminal at the Second Address to Confirm the Address Change” (Claim 5).....	95
C.	The Prior Art Fails to Render Obvious Claims 6-7	98
X.	CLAIM 8 IS PATENTABLE OVER THE COMBINATION OF ISHIYAMA, MURAKAWA AND FORSLOW (GROUND 3).....	99
XI.	CONCLUSION.....	100

I. INTRODUCTION

1. My name is George Rouskas. I have been retained as an expert witness to provide my independent opinion in regards with matters at issue in the *inter partes* review of U.S. 7,937,581 (“the ’581 Patent”) in the IPR2019-00820 proceeding. I have been retained by MPH Technologies Oy (“MPH”), the Patent Owner, in the above proceedings. Petitioner in this case is Apple Inc. (“Apple”).

2. Unless otherwise noted, the statements made herein are based on my personal knowledge, and if called to testify about this declaration, I could and would do so competently and truthfully.

3. A detailed record of my professional qualifications including cases in which I was an expert is being submitted herewith as Exhibit 2004 and is summarized in Section II, *infra*.

4. I am not a legal expert and offer no opinions on the law. However, I have been informed by counsel of the various legal standards that apply, and I have applied those standards in arriving at my conclusions.

II. QUALIFICATIONS

5. I am an Alumni Distinguished Graduate Professor with Tenure in the Department of Computer Science at North Carolina State University (NC State), where I also serve as the Director of Graduate Programs. I am an experienced researcher and educator in the field of computer networking, with expertise in

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.