

TABLE OF CONTENTS

I. INTRODUCTION AND QUALIFICATIONS 4

II. SUMMARY OF MATERIALS REVIEWED AND CONSIDERED 12

III. LEVEL OF SKILL IN THE ART AND PERSPECTIVE APPLIED IN THIS DECLARATION 14

IV. THE '251 PATENT 16

 A. An Explanation of Georeferencing..... 16

 B. Brief Description..... 23

 C. Prosecution History Of The '251 Patent..... 25

V. CLAIM CONSTRUCTION 30

 D. “georeferenced map” 31

VI. UNDERSTANDING OF RELEVANT LEGAL PRINCIPLES 35

VII. THE PRIOR ART AND BACKGROUND EVIDENCE 37

 A. Prior Art Relied Upon For Obviousness Combinations 37

 1. '724 Patent (Ex. 1008)..... 38

VIII. THE '724 PATENT IS NOT INCORPORATED INTO THE '410 APPLICATION..... 38

IX. CERTAIN FEATURES OF THE '251 PATENT CLAIMS ARE NOT DISCLOSED BY THE '410 APPLICATION, NOR THE '728 PATENT 39

 A. Requesting and Receiving Second Georeferenced Map from a Server 41

 B. Groups..... 51

 C. The '410 application does not describe receiving a message from a second device and, based on that message, participating in the group..... 54

 D. The '410 application does not describe “anonymous communications” 57

| | | |
|-----|---|-----|
| X. | THE DISCLOSURES OF THE '724 PATENT RENDER OBVIOUS ALL CLAIMS OF THE '251 PATENT | 65 |
| A. | Independent claims 1 and 54 | 66 |
| 1. | Motivation to combine | 67 |
| 2. | Preambles and initial clause | 71 |
| 3. | 1 and 24 [a] joining a group's network | 72 |
| 4. | 1 and 24 [b] based on the message, participating in the group by exchanging location information via a first server | 73 |
| 5. | 1 and 24 [c] presenting a georeferenced map and symbols..... | 77 |
| 6. | 1 and 24 [d], [e] requesting and receiving second georeferenced map from a second server..... | 81 |
| 7. | 1 and 24 [f] presenting a second georeferenced map and a second set of symbols | 84 |
| 8. | 1 and 24 [g] selecting symbols and sending data..... | 91 |
| 9. | 1 and 24 [h]: first device does not have access to IP addresses of second devices | 97 |
| B. | Dependent Claims..... | 99 |
| 1. | Claims 2 and 25: send SMS, text, image, or video | 99 |
| 2. | Claims 3, 9, 26, and 32: first device is a PDA, PC, smartphone | 101 |
| 3. | Claims 4 and 27: second georeferenced map includes satellite image or aerial photograph | 103 |
| 4. | Claims 5 and 28: update location based on time or distance travelled..... | 105 |
| 5. | Claims 6 and 29: initiating phone call by selecting symbol | 107 |
| 6. | Claims 7 and 30: 251 claim 7 and 30: sending an SMS message..... | 109 |
| 7. | Claims 8 and 31: exchanging status information (battery level, etc.)..... | 111 |
| 8. | Claims 10 and 33: Group identifier..... | 114 |
| 9. | Claims 11 and 34: send voice recording | 115 |
| 10. | Claims 12 and 35: sending GPS location using Internet Protocol..... | 117 |
| 11. | Claim 13: identify user-selected symbol based on spatial coordinates corresponding to selected location on display and map..... | 119 |

| | | |
|-----|---|-----|
| 12. | Claim 14: use database to identify symbol by location | 122 |
| 13. | Claims 15 and 16: adding a new entity with the user-specified location and symbol | 125 |
| 14. | Claim 17: new entity information | 129 |
| 15. | Claim 18: add new entity's spatial coordinates to database | 132 |
| 16. | Claim 19: determine new entity's spatial coordinates based on selected location on displayed map..... | 134 |
| 17. | Claims 20 and 21: entity database on device, server | 137 |
| 18. | Claim 22: spatial coordinates include latitude and longitude | 139 |
| 19. | Claim 23: initiating a VoIP or data call by selecting symbol | 141 |
| | CONCLUSION | 144 |

I. INTRODUCTION AND QUALIFICATIONS

1. I have been retained by Apple Inc. (“Petitioner”) to provide my opinion concerning the validity of U.S. Patent No. 9,445,251 (attached to the accompanying Petition as Ex. 1001 and henceforth referred to as “the ’251 patent”) in support of this Petition for *Inter Partes* Review of U.S. Patent No. 9,445,251.

2. I have not previously been retained by Petitioner. I am simultaneously engaged by Petitioner to provide declarations for IPRs challenging U.S. Patent Nos. 8,213,970; 9,408,055; and 9,467,838.

3. I received a Bachelor of Science degree in Computer Science with a minor in Electrical Engineering from Rensselaer Polytechnic Institute (“RPI”) in 1986. I received a Master of Science degree and a Ph.D. in Computer Science from New York University (“NYU”) in 1989 and 1992, respectively.

4. Since 1998, I have been a Professor of Computer Science at the University of Maryland (“UMD”), where I have joint appointments at the Institute for Advanced Computer Studies and the College of Information Studies (Maryland’s “iSchool”). I am also Associate Provost of Learning Initiatives and Executive Director of the Teaching and Learning Transformation Center. I am a member and previous director of the Human-Computer Interaction Lab (“HCIL”), the oldest and one of the best known Human-Computer Interaction research groups in the country. I was also co-founder and Chief Scientist of Zumobi, Inc. from 2006

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.