

**A TAXONOMY FOR ASSESSING FITNESS  
OF MOBILE DATA SERVICES  
IN US CONSUMER MARKETS**

By

Michael Trupiano

Submitted to the Department of Electrical Engineering and Computer Science

In Partial Fulfillment of the Requirements for the Degree of

Master of Engineering in Electrical Engineering and Computer Science

At the Massachusetts Institute of Technology

01 February 2001

Copyright 2000 Michael Trupiano. All Rights Reserved.

The author hereby grants M.I.T. permission to reproduce and  
distribute publicly paper and electronic copies of this thesis  
and to grant others the right to do so.

Author

\_\_\_\_\_  
Department of Electrical Engineering and Computer Science  
01 February 2001

Certified by

\_\_\_\_\_  
Dr. Amar Gupta  
Thesis Supervisor

Accepted by

\_\_\_\_\_  
Arthur C. Smith  
Chairman, Department Committee on Graduate Theses

**BARKER**

MASSACHUSETTS INSTITUTE  
OF TECHNOLOGY

JUL 31 2002

---

**A TAXONOMY FOR ASSESSING FITNESS  
OF MOBILE DATA SERVICES  
IN US CONSUMER MARKETS**

By

Michael Trupiano

Submitted to the  
Department of Electrical Engineering and Computer Science

01 February 2001

In Partial Fulfillment of the Requirements for the Degree of  
Master of Engineering in Electrical Engineering and Computer Science

## ABSTRACT

The market for mobile access devices is exploding as measured by conventional consumer electronics adoption standards. At rates outpacing consumer adoption of telephones, televisions, VCRs, and personal computers, mobile access devices are headed on the path of ubiquity in our culture over the next several years.

A survey of the wireless market today shows that mobile access devices have certain characteristics, which allow for the creation of value-added services to the consumer. These characteristics include location-awareness, personalization, and immediacy. An examination of revenue models of information goods (as found on the World Wide Web over the last several years) reveals historically useful information that can help shape a taxonomy for assessing fitness of mobile data services in U.S. consumer markets. The ability to build an install base, to provide value-added (non-commoditized) products and services, and to manage the customer will be vital to the success of mobile data services firms.

A framework originally described by Shapiro and Varian is employed as a measuring stick. A new framework and concomitant rubric are developed which measure a relative degree of opportunity and profitability for firms considering a foray into mobile data services. Mobile data service candidate companies are then measured against this rubric.

Thesis Supervisor: Dr. Amar Gupta

---

---

## ACKNOWLEDGEMENTS

I would like to express my gratitude to those who were supportive of the following study. I thank Dr. Amar Gupta of the Sloan School for his guidance and for the degree of autonomy he granted me over the course of the study. I thank Patrick Chung for unparalleled counsel. I thank Richard Barnwell of ZEFER and the management of ZEFER's Boston office for resources and professional guidance. Finally, I thank my family for standing behind me in all my academic and professional pursuits.

Cambridge, Massachusetts  
01 February 2001

---

# 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.