Wireless
Research
Services

May 7, 2014

Randall A. Snyder
8113 Bay Pines Avenue
Las Vegas, NV 89128

Via ECFS

Ms. B. Lynn Follansbee
Consumer and Governmental Affairs Bureau
Federal Communications Commission
445 12th Street SW
Washington, D.C. 20554

Re: Comments on Petition for Expedited Declaratory Ruling Filed by TextMe, Inc.
CG Docket No. 02-278, DA 14-468

Dear Ms. Follansbee,

I am a wireless technology engineer and consultant. I am writing to the Commission to provide my comments regarding the Petition for Expedited Declaratory Ruling filed by TextMe, Inc. and related petitions. I have been retained as an expert witness in nearly 50 Telephone Consumer Protection Act (TCPA) lawsuits representing both plaintiffs and defendants regarding automatic voice-call and automatic text message technology. In fact, my expert opinions have been cited by the United States Court of Appeals for the Ninth Circuit on the very issue of what constitutes an automated telephone dialing system (ATDS) under the TCPA. *See Satterfield v. Simon & Schuster, Inc.*, 569 F.3d 946, 951 (9th Cir. 2009). I have been deeply involved in the design and development of text message technology for well over 20 years and was a founder of m-Qube, Inc., one of the first mobile marketing companies in the U.S. specializing in automatic text message technology. I have also been involved in many areas of both landline and wireless telecommunications since 1987. I have enclosed a copy of my CV along with this letter. Please note that I am not being compensated for sending the Commission this letter.

In my professional capacity, I have had occasion to analyze dozens of text messaging systems in great detail. And as a consumer, I have personally experienced unwanted text message "spam," as many of us have. I am intimately familiar with the myriad of issues regarding the definition of an ATDS under the TCPA. I am also very familiar with the confusion that has arisen due to contradictory court opinions regarding the definition of "capacity" which is key to the definition of an ATDS within the TCPA.

As both a telecommunications professional and a consumer, I believe that I can make some reasonable observations regarding the reality of how automated dialing equipment is used to send text messages and other calls to cellular telephones. My hope is that this brief discussion will bring some clarity to the concept of "capacity" as it is used within the TCPA.

The TCPA was originally meant to regulate automatic telephone dialing technology to protect consumer privacy and spare consumers the annoyance and harassment of receiving unwanted telephone calls, especially if they have to pay for those calls, as is the case with cellular telephone service.

Within the TCPA, the term "automatic telephone dialing system means equipment which has the capacity—

(A) to store or produce telephone numbers to be called, using a random or sequential number generator; and

(B) to dial such numbers."

47 U.S.C. § 227(a)(1).

Prior to when the TCPA was enacted in 1991, automatic telephone dialing technology was immature and cellular telephone usage was truly in its infancy. It was quite common for businesses to use computerized and programmed dialing equipment to generate either random telephone numbers to make random calls or to generate telephone numbers sequentially. The reality was that these computerized systems, for the most part, actually generated internally the telephone numbers to be dialed and called those numbers. The telephone numbers to be called generally were created "out of whole cloth."

By around the time that Congress enacted the TCPA and into the current century, automated dialing technology advanced considerably. Rather than making automated calls to random numbers, businesses found it far more effective and efficient to make automated calls only to targeted lists of telephone numbers. Thus, automated dialing equipment evolved so that it could sequentially dial telephone numbers from stored list of numbers rather than incur the avoidable expense of calling randomly generated numbers. The Commission recognized this evolution of automated technology in 2003 when it clarified that equipment is an ATDS under the TCPA if it simply has the capacity to dial telephone numbers in an automatic manner:

> The TCPA defines an "automatic telephone dialing system" as "equipment which has the capacity (A) to store or produce telephone numbers to be called, using a random or sequential number generator; and (B) to dial such numbers." The statutory definition contemplates autodialing equipment that either stores or produces numbers. It also provides that, in order to be considered an "automatic telephone dialing system," the equipment need only have the "*capacity* to store or produce telephone numbers...." It is clear from the statutory language and the legislative history that Congress anticipated that the FCC, under its TCPA rulemaking authority, might need to consider changes in technologies. In the past, telemarketers may have used dialing equipment to create and dial 10-digit telephone numbers arbitrarily. As one commenter points out, the evolution of the teleservices industry has progressed to the point where using lists of numbers is far more cost effective. The basic function of such equipment, however, has not changed–the *capacity* to dial numbers without human intervention.

In Re Rules & Regulations Implementing the Tel. Consumer Prot. Act of 1991, 18 FCC Rcd. 14014, 14091-92 ¶ 132 (July 3, 2003). Importantly, the Commission also noted that "We fully expect automated dialing technology to continue to develop." *See* ¶ 132. And it has.

In January 2008, the Commission clarified that the TCPA's definition of an ATDS includes "predictive dialers." *See In the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991, Request of ACA International for Clarification and Declaratory Ruling*, 23 FCC Rcd. 559, 566 ¶¶ 12-14 (Jan. 4, 2008). In so ruling, the Commission again noted that "the evolution of the teleservices industry had progressed to the point where dialing lists of numbers was far more cost effective, but that the basic function of such dialing equipment, had not changed—the capacity to dial numbers without human intervention." *See* ¶ 13. Furthermore, the Commission noted that "it expected such automated dialing technology to continue to develop and that Congress had clearly anticipated that the FCC might need to consider changes in technology." *See* ¶ 13. Moreover, the Commission said that

"to find that calls to… wireless numbers are permissible when the dialing equipment is paired with predictive dialing software and a database of numbers, but prohibited when the equipment operates independently of such lists, would be inconsistent with the avowed purpose of the TCPA and the intent of Congress in protecting consumers from such calls." *See* ¶ 14.

The truth of the matter is, very few modern automatic telephone dialing systems generate cellular telephone numbers to be called out of whole cloth. Almost all automated dialing systems in use today only place calls to cellular telephone numbers that are previously stored in a software database or an electronic list of numbers. Certainly debt collection companies do not call randomly generated or algorithmically generated numbers in sequence—the called parties are those that are known and need to be contacted directly. Similarly, the direct marketing industry realized several years ago that making automated telemarketing calls to random or algorithmically generated cellular telephone numbers in sequence is both costly and ineffective; hence, the telephone numbers to be called are from an electronic list of numbers provided to the automatic dialing system. These telephone numbers are obtained by marketing lead generation companies targeting a specific demographic or collected from individuals themselves.

Also, in my professional capacity, I have reviewed the functionality of automated telephone dialing equipment that can programmatically make voice-calls or send text messages to a list of as little as one telephone number in response to some predefined trigger. For example, modern automated dialing systems can send computer-generated text messages to one or more stored telephone numbers in response to various programmable triggers, such as a manually-generated text message, in response to a human manually pressing a button or in response to any other programmable criteria. In my professional experience, automated dialing technology is evolving so that businesses can send individualized text messages to specific consumers they wish to target. This has become a necessity for businesses, as the number of consumers using cellular telephones and text messages has increased astronomically since Congress enacted the TCPA.

In 1991, when the TCPA was enacted, only a few hundred thousand people used cellular telephones. Calls were both expensive to make and receive and few of these subscribers publicly revealed their cellular telephone numbers due to the cost. As of the end of 2012, the latest data provided by the Cellular Telecommunications and Internet Association (CTIA), there were 326.4 million cellular telephone subscriptions in the U.S. Furthermore, 38.2% of households were wireless-only households. *See* http://www.ctia.org/your-wireless-life/how-wireless-works/wireless-quick-facts. And while text messaging only began in Europe in 1992, approximately 2.19 trillion text messages were sent annually in the U.S. in 2012, according to the CTIA. Because so many consumers virtually exclusively use their cellular telephones to communicate, those telephone numbers are the only numbers they use for every purpose. And businesses continue to seek new ways in which to send their commercial messages to consumers' cellular telephones using automated dialing technology. Increasingly, businesses use automated text messages to deliver their commercial messages to individually specified consumers.

Today, there are numerous organizations that use automated text message services. These include mobile marketing companies, SMS aggregators (who combine connections to all the carriers and resell a single connection for companies to reach subscribers of all those carriers) and others who wish to communicate *en masse* or discretely with cellular subscribers. As text messages are considered "calls" within the TCPA, consumers receiving unsolicited text messages are entitled to the same protections that the TCPA affords. As such, automated text message systems must also not violate the TCPA and these systems can fall within the definition of an ATDS.

As the Commission has noted several times, automated dialing technology continues to evolve. Thus, so long as there is any automated dialing capacity in equipment used to call consumers, businesses

should be cautioned that the TCPA requires them first to obtain the express consent of the consumer to whom they are sending the message.

The TCPA was enacted to regulate automatic telephone dialing technology to protect consumer privacy, especially if they have to pay for unwanted telephone calls. If it is truly the intent of Congress to protect consumers from such calls, the concept of automatically dialing one or more telephone numbers from an electronic list or software database should certainly fulfill the definition of an ATDS for all types of automated dialing systems.

Sincerely,

Randall A. Snyder

Randall A. Snyder
President
Wireless Research Services, LLC
(http://www.WirelessResearchServices.com)

Randall A. Snyder
Curriculum Vitae

Professional Summary

Randall Snyder is a recognized expert in wireless and cellular telecommunications technology, executive manager and leader, designing, developing, marketing and managing mobile telecommunication system and software products. He has over 30 years of experience specializing in wireless telecommunications technology, network architecture, design, system engineering, marketing and product management. He is a reputable leader and strategic developer with a successful background building startups. He is skilled presenter, communicator, and educator with success impacting organizational performance, corporate reputation and increasing sales. Mr. Snyder is results-oriented, highly organized and creatively focused on adhering to organizational missions and philosophy while designing best-of-breed mobile technology solutions. He has extensive travel experience to Asia-Pac, Latin America and Europe supporting engineering, sales and marketing with familiarity with wireless network operators and manufacturers worldwide. Mr. Snyder has several years of wireless standards development with extensive travel throughout Asia-Pac, Latin America and Europe.

Expertise

- Business Relations: Seminars, Sales Presentations and Sales Engineering
- Legal: Provisional and Patent Applications, Subject Matter Expert Consultant, Expert Witness and Testimony, Litigation Support, Sales and Vendor Contract Negotiations and Review, Qualified as an Expert in Federal District Court
- Management: Strategic/Tactical Planning, Product Management, Marketing Management, Operations Management, Competitive Analysis, Problem Resolution, Project Planning, Risk Management
- Organizational: P&L Management, Budget Planning, Expense Reduction and Cost Control
- Technology: Wireless Network Engineering, Design and Architecture, Multimedia Systems, Mobile Internet, Mobile Video, Mobile Marketing, mCommerce and Mobile Payments, Mobile Telecommunications Standards, 3G, UMTS, LTE, LBS, SMS, MMS, WAP, GSM, and ANSI-41 (CDMA) Networking, Signaling System No. 7 (SS7), Communications Protocols, Telephone Consumer Protection Act (TCPA), Automatic Telephone Dialing Systems (ATDS)

Education

Year	College or University	Degree
1984	Franklin and Marshall College	B.A., Mathematics (minor in Astronomy)

Randall A. Snyder
Curriculum Vitae

Professional Experience

From: January 2007
To: Present
Organization: Wireless Research Services, LLC; Las Vegas, NV
Title: President and Founder
Summary: Responsible for consulting business, and revenue as well as being the principal consultant. Areas of subject matter expertise include mobile and cellular networking, 3G, LTE, UMTS, GSM, ANSI-41, LBS, SMS, MMS, WAP, SS7, Diameter Signaling, Automatic Telephone Dialing Systems (ATDS) and mobile multimedia systems. With this expertise, primary consulting is in the area of system and product architecture, design, development, management and marketing as well as patent preparation and development, expert reports, expert testimony and litigation support. Expert witness and technology consultant for over 70 legal cases; authored over 55 expert reports for intellectual property cases, Telephone Consumer Protection Act (TCPA) cases and wireless technology litigation cases.

Notable Case:

- Personally cited by United States Court of Appeals for the Ninth Circuit. Satterfield v. Simon & Schuster, Inc. No. 07-16356, D.C. No. CV-06-02893-CW Opinion. Appeal from the United States District Court for the Northern District of California. Opinion by N.R. Smith, Circuit Judge. Filed June 19, 2009.

  Result of expert opinion greatly expanded the TCPA and was followed by formal FCC Declaratory Rulings that text messages are calls as defined by the TCPA and a stored electronic list of telephone numbers falls within the definition of an Automatic Telephone Dialing System (ATDS).

From: September 2007
To: August 2010
Organization: Finsphere Corporation; Bellevue, WA
Title: Vice President Product Management & Wireless Engineering
Summary: Was among the first handful of employees at Finsphere prior to Series A funding. As vice president of product management and wireless engineering and a member of the executive management team, was responsible for product management activities and wireless technology solutions for Finsphere's products. These products encompassed mobile location based software-as-a-service (SaaS) products offered primarily to financial institutions and banks. Responsibilities included product requirements and system functionality, strategic planning, R&D of new technologies, wireless network interconnectivity as well as wireless technology for Finsphere's products. Was also responsible for market strategies, white papers and development and management of intellectual property and patent applications.

From: May 2004
To: April 2007
Organization: Entriq, Inc.; Carlsbad, CA
Title: Vice President Product Management
Summary: Was responsible for the entire product management team and system architecture for Entriq's products and services. Products encompassed mobile and broadband pay media applications (specializing in video), digital rights management (DRM) and security solutions, e-commerce and m-commerce systems as well as ad management and delivery solutions for both broadband and mobile media services. Responsibilities also included network and protocol analysis, market analysis, evaluation of third-party software and services, all vendor contract negotiations, RFP responses and overall administrative responsibility for the entire product line. Was responsible for directing and managing the technical writing department producing all user documentation associated with the products. Was nominated for a National Television Arts and Sciences Emmy Award for Outstanding Achievement in Advanced Media Technology for unique mobile technology designed, developed and commercially deployed as part of Entriq's solution.

From: February 2002
To: November 2003
Organization: m-Qube, Inc. (acquired by Verisign); Boston, MA
Title: Vice President Product Management and Carrier Marketing
Summary: Was responsible for the entire product management and carrier marketing teams, member of the executive management team and one of the founders. Was responsible for all product management, system engineering and product strategy for all business conducted with the wireless industry and carriers. Was in charge of the market strategy and wireless network architecture for m-Qube's mobile marketing service, a value-added service offering mobile marketing solutions to wireless carriers using short message services (SMS) for GSM and CDMA networks. The service architecture enabled branded companies to deploy promotional marketing and messaging campaign dialogs with mobile subscribers via SMS. The network architecture required definition and design of all aspects of the overall network including SMS technology, interconnectivity to the wireless carriers, signaling, traffic management, market requirements for features and services, network equipment specifications and OA&M.

From: April 2001
To: February 2002
Organization: Bitfone Corporation; Mountain View, CA
Title: Vice President Product Management and Marketing
Summary: Was responsible for the entire product management team and all of the company's product definitions, strategies and positioning. Had direct responsibility for market and product requirements, market research, competitive analysis, product strategy and sales strategy. Bitfone's products included the iBroker, a mobile Internet technology infrastructure platform to enhance WAP, MMS, mobile e-mail and wireless

messaging. Was also responsible for the mProve product (obtained via merger with Digital Transit, Inc.) providing over-the-air firmware and software update technology to mobile devices.

From: November 2000
To: April 2001
Organization: Openwave Systems (via merger of Phone.com and Software.com); Redwood City, CA
Title: Executive Director Emerging Technologies
Summary: Was responsible for new 3G technologies and providing market and product plans for those technologies for the entire product line. Primary responsibility for the 3GPP Multimedia Messaging Service (MMS), collecting market requirements from customers, developing corporate strategy for MMS and preparing the organization for additional development of the product. In addition, taught wireless technology classes to the different departments at Openwave and educated them on wireless service provider strategies and network technologies.

From: March 2000
To: November 2000
Organization: @Mobile and Software.com (via acquisition); Santa Barbara, CA
Title: Director Wireless Product Management
Summary: Was responsible for the product managers and for all of the wireless internet infrastructure products. Responsibilities included the overall market and product strategy for Software.com's wireless e-mail, short message service, instant messaging and unified messaging products. Was responsible for the overall revenues generated from these products based on detailed product plans and internal organizational planning. Much of his time was spent working with the executive management team and the sales directors on corporate market strategy.

From: December 1999
To: March 2000
Organization: FreeSpace Communications, Inc.; Palo Alto, CA
Title: Consulting Network Systems Engineer
Summary: Was responsible for the complete design of the backbone network architecture for a new broadband fixed wireless data network. This new architecture incorporated DSL as the backbone network technology. The network architecture required definition and design of all aspects of the overall network plan including DSL technology, IP technology, ATM technology, interconnectivity to the PSTN, operations signaling, traffic engineering, market requirements for network features and services, network equipment specifications and OA&M.

From: April 1992
To: December 1999
Organization: Synacom Technology, Inc.; San Jose, CA

Randall A. Snyder
Curriculum Vitae

Title: Executive Director Product Marketing and Management
Summary:

1998 – 1999 Executive Director Product Marketing and Management

- Responsible for managing the entire product management and marketing department of Synacom Technology, including market research and planning, product management and market communications. Lead the entire design, definition and product direction of all aspects of Synacom's products.

1997 – 1998 Director Systems Engineering

- Responsible for coordinating and managing the overall functional and requirements specifications for all Synacom's products as well as the detailed test plans used for alpha system testing of those products. Also responsible for directing and managing the technical writing department producing all of the user documentation associated with all of the products. Provided the primary sales engineering support for sales and marketing and was involved in nearly every aspect of the product lifecycle.

1996 – 1997 Director Consulting Services and Principal Engineer

- Responsible for obtaining, coordinating and managing all technical consulting projects performed by the company. These projects included wireless network architecture and design for both IS-41 and GSM networks for dozens of client companies (carriers and equipment manufacturers). In this role, continued as a member of both the ANSI/TIA TR45.2 Subcommittee for cellular radio intersystem operations standards and the ANSI/TIA TR46 Committee for 1900 MHz GSM PCS standards. Major contributor to TR46 in the area of GSM-to-IS-41 network interworking. Also authored, edited and published TIA standard specification IS-93 for cellular network interconnections to the PSTN and ISDN.

1992 – 1996 Principal Engineer

- Consulted for McCaw Cellular, AT&T Wireless, AirTouch Cellular, AirTouch Satellite Services, Globalstar, Nokia, MCI, Sprint PCS, XYPoint, NextWave, NewNet American Personal Communications, CTIA and several other national and international wireless telecommunications companies.
- Wrote wireless network design and analysis papers including HLR specifications, Authentication Center specifications, PCS network design, short message service (SMS) design, intelligent network applications of wireless technology and in-house expert in signaling protocols. Extensive experience with Signaling System No. 7, including both protocol implementation and design. Authored the Standard Requirements Document for the SS7-based A-interface between the base station and MSC used throughout the TIA. Also involved in the design of the Bellcore WACS/PACS technology, digital cellular network service and feature descriptions, SCPs and HLRs. Extensive experience developing the architecture and design of distributed intelligent networks including, SS7, cellular, PCS, AIN and WIN networks. Key member of the original Cellular Digital Packet Data (CDPD) architecture and design team. Designed the CDPD air interface protocol emulator

developed and marketed by AirLink Communications, Inc.

From: December 1990
To: April 1992
Organization: AT&T Bell Laboratories; Whippany, NJ
Title: Consulting Member of the Technical Staff
Summary: Evaluated wireless technology services for the Wireless Systems Architecture group. Also participated as a system engineer on the design of the Global System for Mobile (GSM) communication architecture and a software engineer developing the base station controller (BSC) for GSM. Also responsible for planning, coordinating, designing and testing the SS7 protocol software for the GSM A-interface between the BSC, MSC and operations and maintenance center (OMC). High-level and detailed design specifications were developed to coordinate the protocol testing between two remote laboratories. Provided the traffic analysis and traffic engineering of call traffic for the BSC. Specifically designed and developed the dynamic traffic overload control subsystem for the BSC. Presentations were given to technical staffs at multiple Bell Laboratories facilities supporting this work.

From: May 1987
To: December 1990
Organization: DGM&S, Inc.; Mt. Laurel, NJ
Title: Senior Staff Consultant
Summary: Responsible for the design, development and test coordination of an advanced intelligent network applications platform for a service control point (SCP). Also spent several years as a consulting software engineer for Siemens AG, developing and testing SS7 and call control software for the EWSD digital switching system for international as well as U.S. national network implementations. This work involved extensive travel to both Frankfurt and Munich, Germany for software system design and testing. Also involved in the concept, design and technical marketing of proprietary enabling technology software products for SS7 and ISDN.

From: May 1986
To: May 1987
Organization: ADP, Inc.; Mt. Laurel, NJ
Title: Senior Software Engineer and Analyst
Summary: Responsible for the design and development of data communications and real time database application software for a host data center that provided real time financial information to large brokerage houses. Data communication protocol expertise in HDLC, RS-232 and IBM BiSync.

From:	June 1984
To:	May 1986
Organization:	C3, Inc.; Cape May, NJ
Title:	Consulting Systems Analyst and Software Engineer
Summary:	Civilian consulting systems analyst and engineer to the U.S. Coast Guard Electronics Engineering Center (EECEN) for C3, Inc. Developed sophisticated database software for shipboard use including inventory and law enforcement applications. The work included the follow-through of the entire project lifecycle including writing of requirements, functional, design and program specifications, coding, debugging, alpha and beta testing, release, shipboard installation and continuing technical support of the product. Received a personal commendation from Admiral W.F. Merlin, Chief, Office of Command, Control and Communications, for successful efforts on these projects.

Professional Affiliations, Achievements & Awards

- Member, Mobile Multimedia Institute
- Nominated, Technology and Engineering Emmy Award for Outstanding Achievement in Advanced Media Technology, 2006

Patents & Publications

Issued Patents

Patent	Date	Description
US 8,670,753	3/11/2014	System and Method for Determining and Delivering Appropriate Multimedia Content to Data Communication Devices
Mexico 308720 B	12/04/2013	Sistema y Metodo para el Analisis Automatizado que Compara una Ubicacion del Dispositivo Inalambrico con Otra Ubicacion Geografica
US 8,588,748	11/19/2013	System and Method for Mobile Identity Protection of a User of Multiple Computer Applications, Networks or Devices
US 8,437,784	05/07/2013	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 8,374,634	02/12/2013	System and Method for Automated Analysis Comparing a Wireless Device Location with Another Geographic Location
US 8,280,348	10/02/2012	System and Method for Mobile Identity Protection Using Mobile Device Signaling Network Derived Location Pattern Recognition
US 8,155,677	04/10/2012	Mobile Messaging Short Code Translation and Routing System

		and Method
New Zealand 580499	08/31/2012	System and Method for Automated Analysis Comparing a Wireless Device Location with Another Geographic Location
US 8,131,262	03/06/2010	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 8,116,731	02/14/2012	System and Method for Mobile Identity Protection of a User of Multiple Computer Applications, Networks or Devices
Australia 2008/115299	02/09/2012	System and Method for Automated Analysis Comparing a Wireless Device Location with Another Geographic Location
S. Africa 2009/06947	01/26/2011	System and Method for Automated Analysis Comparing a Wireless Device Location with Another Geographic Location
US 7,792,518	09/07/2010	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 7,403,788	07/22/2008	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 6,128,389	10/03/2000	Authentication Key Management System and Method
US 5,970,144	10/19/1999	Secure Authentication-Key Management System and Method for Mobile Communications
US 5,850,445	12/15/1998	Authentication Key Management System and Method
US 5,799,084	08/25/1998	System and Method for Authenticating Cellular Telephonic Communication

Published Patents Pending

Patent Application	Date	Description
20110202407	08/18/2011	System and Method for Improving Internet Search Results Using Telecommunications Data
20110154447	06/23/2011	Systems and Methods for Authenticating a User of a Computer Application, Network or Device Using a Wireless Device
20090204815	08/13/2009	System and Method for Wireless Device Based User Authentication
20080119210	05/22/2008	Wireless Messaging Address System and Method
20080114884	05/15/2008	Centralized Mobile and Wireless Messaging Opt-Out Registry System and Method
20060224943	10/05/2006	Method and System to Automatically Publish Media Assets

Publications

1. What Workers Want from Wireless by Randall A. Snyder; April 15, 2004. America's Network, Advanstar Communications, Santa Ana, California USA.
2. Snyder, Randall A. and Gallagher, Michael D. Wireless Telecommunications Networking with ANSI-41 Second Edition; McGraw-Hill, New York, NY USA; © Copyright 2001 Randall A. Snyder and Michael D. Gallagher. *Foreword by Tom Wheeler, current Chairman, Federal Communications Commission*.

3. Forecasting SS7 Traffic by Randall A. Snyder; November 1, 2000. Wireless Review, Volume 17, Number 21, Intertec Publishing, Overland Park, KS USA.
4. Gallagher, Michael D. and Snyder, Randall A. Mobile Telecommunications Networking with IS-41; McGraw-Hill, New York, NY USA; © Copyright 1997 Michael D. Gallagher and Randall A. Snyder.
5. IS-41/GSM Interoperability by Randy Snyder; December, 1995, Cellular Networking Perspectives, Cellular Networking Perspectives, LTD, Calgary, Alberta, Canada.

Citations

1. Commendation from Admiral W.F. Merlin, Chief, Office of Command, Control and Communications, USCG (1986)
2. Method and Apparatus for Routing Short Messages, US Patent #6308075, Issued October 23, 2001.
3. Mediation Software for Delivery of Interactive Mobile Messaging and Personalized Content to Mobile Devices. Patent Application # 20020120779, August 29, 2002.
4. Automatic In-Line Messaging System, US Patent #6718178, Issued April 6, 2004.
5. Method and System for Wireless Instant Messaging, US Patent #7058036, Issued June 6, 2006.
6. United States Court of Appeals for the Ninth Circuit. Satterfield v. Simon & Schuster, Inc. No. 07-16356, D.C. No. CV-06-02893-CW Opinion. Appeal from the United States District Court for the Northern District of California. Opinion by N.R. Smith, Circuit Judge. Filed June 19, 2009.