

# Ben Levitan

Cellular, Telephony and Wireless Consultant, Author, Expert Services

PO Box 99282, Raleigh, NC 27624 - (919) 420-0924 • benlev@aol.com • benlevitan.com

## Ben Levitan's CV

### EXPERTISE

Cellular, Wireless Systems and Technical Standards, 3GPP, 3GPP2, ITU-T, ANSI expertise. 27 Patents and 4 Trade Secrets in area of Wireless, Cellular and 3G Mobile Phone Systems, including CALEA, 4G/LTE, Location Based Services, GPS and 911. Expert on the Standards and Protocols Landline Telephony Systems. Experts on Standards and Protocols Broadband, Internet, Data, Billing Systems and numbering. Cellular Forensics and Search and Rescue via Cell Data Expertise. Patent application and procedures expertise.

Certified Federal and State Expert in Cellular Telecommunication, GPS and Data Services.

**System Protocol Types** – Expert in current and developing wireless standards for 3GPP, ANSI-41, GSM MAP, iDen, OMA, IETF, and 3rd Generation protocols. (3GPP and 3GPP2) and Long Term Evolution (LTE).

**Represented** – USA, Verizon, Sprint and other on standards committees including ITU-T, 3GPP and ANSI committees. Certified in Federal and States Courts as an expert in Cell Phones.

**Business Development Expertise** - System engineer and in product development for Nextel. Specifically, I was one of the project managers for the team that developed the CDMA version of PTT for Nextel and saw it launch as QChat.

My role in Nextel and other companies was in the Business Development group, recommending and implementing new products and services. I was active in the launch of several new products at GTE including the launch of their Local Number Portability platform and GSM gateway.

Representative to the 3GPP2 standards committee when we developed PoC (the standard version of PTT).

I have strong skills in telecommunications with 27 patents (most held by Sprint now)

Expert knowledge of the telecom standards in 3GPP/3GPP2. I represented companies for 20 years in this area.

Outstanding presentations skills Often called to present highly technical information to executive level audience, sales force and marketing areas. I can clearly explain the working of technology and the business drivers that will motivate companies to adopt technologies and move or evolve from existing technologies. Work as an expert witness I teach cell phone technology to jurors in patent infringement case, civil cases and criminal cases.

Knowledgeable with the needs of large customer bases and their issues in management, administration and support of their base.

**Standards and Systems** - Active in US and international development of ANSI-41, GSM, 802.x, All-IP (3G Standards, SIP call control), ITU-T (CCITT) ISDN, SS7, PTT, PoC, Interstandard Roaming, FCC and US Government mandates, orders with special expertise in CALEA, E-911, Location, WPS, 3GPP, 3GPP2 and E.NUM, roaming, authentication, standards

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and billing systems, CIBER and TAP/TAP2.

**Extensive technical support** on FCC filings and meetings before commissioner for 800 portability, with Wiley, Rien & Fielding, GTE, others on SS7 Tariffs, CALEA (wiretap), Priority Access following (WPS) following 9-11 and others.

**Extensive litigation support** as Expert Witness engaged in Wiretap (CALEA), Location based Evidence, IPR (issues of validity, timely disclosure, non-infringement, ITC prep), 911 Wrongful Deaths, Texting While Driving matters, Spoofing, Billing Disputes and other Federal civil and criminal matters involving telephone evidence and other digital evidence. Qualified as an expert in Federal and State Courts.

**Committees** – 3GPP, 3GPP2, TIA TR-45, TR-46, PTSC (T1S1)., T1 Committees since 1984, ITU-T (previously CCITT) AMTA (SMR) UTC, HomePlug, CALEA LAES, SHS and CALEA Summits, State Department SG B & SG D. GSM, GGRF, ARINC, RTCA and various Joint Experts meetings.

## **RECENT ACCOMPLISHMENTS**

- Nextel's Top Innovator Award
- 29 Patent Applications submitted to US Patent & Trademark Office
- 4 Trade Secrets developed and held by Sprint
- 8 Patent currently published
- Nextel Performer award for \$750,000 savings on first day.
- Seven Figure award in 911 Wrongful Death Case
- Determined technical flaw in serving 911 system as engaged telephony expert
- Federal Death Penalty reduced to seven years for case built solely on cellular phone evidence. Engaged as the telephony expert.
- Expert in first technical challenge to wiretap evidence (USA v. Reed)
- Successfully defended client in "brake failure" matter by first proof of "texting while driving" as cause.
- Key Designer of the US Wiretap System (CALEA)
- Key Participant in the design and development of US Wireless 911 system.
- Selected by peers to represent 3GPP2 Core Network as Speaker at India CDMA Summit

## **PROFESSIONAL EXPERIENCE**

- JANUARY 2006 - PRESENT **Consultant - Wireless and Broadband Telephony**
- Telecommunications Expert, engaged in Consulting, Expert Witnessing, authoring of technical books.
  - "Telecommunication Expert" for various News shows and scripted TV shows.

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- Engaged as expert in IPR matter between mobile handset vendors regarding 3GPP standards vs. plaintiff's intellectual property rights (May 2006 – present)
- Engaged as expert in Federal criminal matter. Serving as defense team telephony expert in circumstantial case based wholly on cellular phone evidence. Discovered that defendant and victim were not in same town.
- Expert for FBI to study broadband over power line technology and make a recommendation regarding technical operation, market landscape, potential market growth and technical methodology for supporting lawfully required wiretap capability for broadband and telephone services offered. (January 2006 –November 2006)
- Yahoo v. MForce for Yahoo in theft of trade secrets case. Deposition sealed. (January 2006)
- Engaged as expert in Los Angeles criminal matter and proved use of illegal wiretaps. Recommended technical challenge to suppress wiretaps. First such challenge in US. Same challenged used several times since this case. Provided technical report of evidences evaluated in the matter. (March 2006 - May 2006)
- Authored, "GSM Technology" published by Althos Publishing. (September 2006 and 2<sup>nd</sup> Edition, October 2009)
- Selected by Althos Publishing to write a book on technical and market aspects of BPL.
- Selected by McGraw-Hill to write book on GSM.
- Engaged as expert in case of conspiracy to steal trade secrets for a major Mortgage Company.
- Frequent Guest on New Shows as "Telecommunications Expert" commenting on matters from Cellular Evidence to Health Care Debate. Shows include Nancy Grace, Shepard Smith, Keith Olbermann and various NBC local stories.
- Frequent Radio Show guest for multiple radio shows, and often quoted in printed material regarding cellular phone evidence.
- Pro Bono support to the Innocence Project
- Manager on North Carolina Search and Rescue Team as Telecom Expert
- Consultant to writer's of A&E Scripted crime drama

AUGUST 2003 -  
DECEMBER 2005

## **NEXTEL COMMUNICATIONS (presently Sprint)**

Sr. Manager, Global Technology Standards (Nextel, Technology & Strategy Group)

### **Responsibilities**

- Sole representative to 3GPP2 standards development committee with focus on Core Network Standards.
- Sole representative on all CALEA standards matters.
- Support to business development, sales and Nextel's Intellectual Property Department.
- Support of development team via extensive on-line standards library. Voting member for 3GPP2 TSG-X and TSG-S.
- Served as alternate and Nextel attendee to 3GPP2 Operating Partners and Steering Committee.

### **Accomplishments**

- Nextel's Top Innovator Award for 27 patent submissions
- Patents in areas of 911, Wiretap, Rural Cellular, Calling Party Pays, others.
- Nextel Performer award for \$750,000 savings

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- Technical Member (1 of 2 on team of 20) for NewCo business launch team (Merger put project on hold)
- Number of spot bonuses for performance and patent application milestone accomplishments.
- Selected by standards peers to represent 3GPP2 Core Network as Speaker at India CDMA Summit
- Successfully negotiated restructure of wiretap (CALEA) standards in CDMA to support Nextel goals
- Successfully build a team of carriers to block a technical change that would impact Nextel's LNP launch.
- Selected to perform technical evaluation of pre-launch i840, Nextel's first picture phone.
- Selected to perform market and technical evaluation of Nextel's Flarion OFDM WiMax test vs. others.
- Provided initial notice and intelligence of first competitive PTT launch and member of strategy team.
- Developed technical improvement in Nextel network (four) which Nextel maintains as trade secrets
- Supported the Industry Number Committee / US Navy requesting non-geographic NPA (Navy withdrew request based on arguments presented)

## GTE

*GTE TSI is USA's largest cellular billing and clearinghouse - became Verizon International briefly TSI and now Synaverse*

### Manager, Standards and Technology

#### Responsibilities

- Primary Technical Consultant regarding wireless standards to all departments
- Provided technical consulting for system design of new products, including LNP, Churn Management, 911 Service Bureau, Authentication Service Bureau.
- Expert for new business proposals, development, RFP's, white papers, user guides,
- Presented training and technical presentations to management, development and sales.
- Initiate business case for new products
- Key technical support to sales as needed for sales calls
- Provided customer support on all technical issues as requested
- Managed the representation of TSI at all appropriate GSM, CDMA and TDMA standards forums, including budget, personnel, and coordination with product managers
- Represent TSI at all appropriate forums (business need/opportunity or customer support)

MARCH 1998 -  
MARCH 2003

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- Active speaker, per request of Executives, Sales and Marketing at industry conferences. Frequent contributor to Company Website.

## **Successful Projects:**

- Initiated, launched or provided substantial technical expertise for products for: Wireless Number Portability (including SOA/ICC and IS-41 NPREQ), CALEA, UIM, 911 Phase I and Phase II, Location Services, Interstandard Roaming (GSM <> IS-41), SMS Interoperability IS-41 Revision C, D and E. UIM and R-UIM development.
- Created training classes for customers, developers and management on above. Trained the trainers and developed courseware for new products.
- Negotiated reduced requirements for CALEA with FBI CIS.
- Successfully contributed to GTE/Verizon efforts to forestall portability.
- Developed concept proposal for new opportunities in Asia, US and South America
- Investigated opportunities in ALL-IP to support Media Gateways, SIP Proxy
- Regular consulting for Product Teams/Launch Teams for new/developing requirement
- Developed the industries largest and most complete on-line ANSI-41 technical library.

## **Represented GTE, Verizon or TSI Telecommunication Services at:**

- TR45.2 (IS-41 Rev. C through E) voting member
- GSM Global Roaming Forum (GGRF) network
- 3PP2 (3rd Generation Partnership Program) voting member TSG-N (Now TSG-X)
- T1P1 – Wireless and PCS Standards voting member

1995 - 1998

## **ALCATEL**

### Senior System Engineer

- Reporting to Director Engineering, responsible for new feature development for the GMH2000 AMPS cellular, TDMA and CDMA switch.
- Specifically responsible for project management, system engineering, testing and commercial turn on and standards compliance and representation for ANSI-41 standards.

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- Successes include Authentication, Voice Privacy and Signaling Message Encryption and WPS (early form), SMS, CLIP, CLIR, CALEA and others).
- Managed Inter-vendor testing, and resolution of customer issues.

1990 - 1995

## **AERONAUTICAL RADIO, INC**

### Principle Engineer

- Reporting to Director Engineering, represented US Airline industry at ITU, FCC and ANSI, US State Department, on technical telecom issues.
- Projects included developing standards for Universal Personal Telecommunications, Personal Communications, Services, Mobile / Aeronautical Mobile Satellite Services and International/Domestic `800` Service and `888` expansion.
- Initiated projects on Aircraft Passenger Communications (air phone), Airport Networks, and Entertainment interfaces.
- Significant successes providing technical support on FCC issues with legal team, including 800 number portability, including presentations to the commissioners.
- Member of technical team established by the US Congress (RTCA) that determined the effect of cellular telephones and other passenger devices on board commercial aircraft.

1986 - 1990

## **COMSAT**

### Digital Engineer

- Reporting to VP of Engineering, designed, developed and negotiated ITU (CCITT) and ANSI telecommunication standards for Signaling System #7 (SS7), ISDN, Mobile, IMT 2000 (formerly FPLMTS).
- Project Manager for Satellite Packet Switching/ISDN Test with budget and schedule responsibility.
- Successfully negotiated ISDN standards to support operation over satellite.

1981 - 1986

## **HUGHES AIRCRAFT COMPANY**

### Member of Technical Staff

### CLEARANCE - SECRET

- Reporting to Manager of Engineering responsible for project design, integration, installation and test of Satellite Ground Station Subsystems
- Successful projects included INTELSAT and AUSSAT Stations.
- System Test Engineer for the - NASA Galileo/Jupiter Probe - Numerous Proposal Efforts, Technical Customer Training

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## **EDUCATION**

### **CURRENT STUDIES**

#### **COMPLETED STUDIES**

##### **University of Connecticut**

Coursework in Electrical Engineering

Credits have been transferred to DeVry University towards BS in Technical Management.

##### **El Camino Community College**

General studies toward graduate degree

Credits have been transferred to DeVry University towards BS in Technical Management.

1994 – to present

40 hours per year of training via corporate internal and approved external training in technology, business skills, management and project planning

Trained in Coverdale Methods for project management at Nextel

TQM training via Hughes Aircraft Company.

Demmings training via Hughes Aircraft Company

#### **TEACHING**

Courseware development for new wireless products, and “train the trainers” to present the material.

Employed as a technical trainer for several seminar companies.

Trained primarily in telephony, computer basics and project management.

Technical training planned to attorney’s regarding cellular telephone via the Association of Federal Defense Attorneys via web conference.

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Developed and presented Webinars on technical issues related to 3rd Generation, WiFi, WiMax, Use of Cellular Evidence for Investigations, 911 Systems, The Basics of Cellular Telephone.

Developed and Presented "The basics of cellular telephone systems for Attorney's"

## **BOOKS PUBLISHED**

- Basics of Satellites (Two editions)
- Wireless Billing Dictionary (6 co-authors)
- Basics of Wireless Telecommunication (4 author collaboration)
- GPS Quick Course, Althos Press
- GPS Technology and Systems (Two editions)

Under Contract:

- The GSM Handbook, MacGraw-Hill
- The BPL Handbook, Althos Press

Updated previously published books by other authors

- Telecom Billing
- Wireless Telecom Billing
- Basics of Satellites

Contributing editor:

- IPTV Magazine

## **BEN'S PATENTS**

4 Trade Secrets developed by Ben Levitan related to cellular technology, are closely held by Sprint. Additionally 29 Patents are in the US Patent Office waiting processing. At this point, seven have now been published as Patents and eight Applications are posted for Public review:

## **PUBLISHED PATENTS**

No	Patent No.	Title
1	<a href="#">7,623,842</a>	<a href="#">System and method for determining a location of an emergency call in a sparsely-populated area</a>
2	<a href="#">7,454,203</a>	<a href="#">System and method for providing wireless services to aircraft passengers</a>
3	7437155	<a href="#">System and method for operating a private wireless communications system</a>
4	<a href="#">7,409,219</a>	<a href="#">System and method for recovering a lost or stolen wireless device</a>
5	<a href="#">7,336,962</a>	<a href="#">System and method for position equipment dusting in search and rescue operations</a>
6	<a href="#">7,236,768</a>	<a href="#">Systems and methods for a carrier-independent calling-party-pays system</a>
7	<a href="#">7,155,207</a>	<a href="#">System and method of analyzing communications between a calling party and a called party</a>

## **Pre-Grant Patents on Public Review**

Patent No.	Title
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<a href="#">20070072620</a>	<a href="#">System and method for recovering a lost or stolen wireless device</a>
<a href="#">20070072590</a>	<a href="#">System and method for providing wireless services to aircraft passengers</a>
<a href="#">20070060133</a>	<a href="#">System and method for a private wireless network interface</a>
<a href="#">20070010245</a>	<a href="#">System and method for operating a private wireless communications system</a>
<a href="#">20060293023</a>	<a href="#">System and method for position equipment dusting in search and rescue operations</a>
<a href="#">20060286961</a>	<a href="#">System and method for determining a location of an emergency call in a sparsely-populated area</a>
<a href="#">20060053010</a>	<a href="#">System and method of analyzing communications between a calling party and a called par</a>
<a href="#">20060025109</a>	<a href="#">Systems and methods for a carrier-independent calling-party-pays system</a>

## **ADDITIONAL INFORMATION**

- Fluent in French (Native)
- Some Japanese / Starting Chinese (Mandarin)
- Strong PC Skills
- Programming several languages
- Significant hands-on technical experience
- Strong presentation and training skills
- Strong Database (FileMaker) Skills
- Strong Web (HTML) & JavaScript Skills

## **Awards and Other Interests**

- Private Pilot Land and Sea
- Certified Scuba Diver
- Certified Night Search and Rescue
- Nextel/Sprint Top Innovator - 2005
- 2009 "Elite Expert" by IMS
- Customer Service Award, GTE (2000), ARINC (1991)
- National Speakers Assoc, Outstanding Member
- UPI award for Photography (1981)
- Certified Lifesaver/Red Cross
- Selected as Docent for Smithsonian National Air & Space Museum
- Docent - "Dead Sea Scrolls" -NC Museum of Science
- Management Team – North Carolina Search and Rescue
- Scuba Team – North Carolina Search and Rescue