# STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

IN RE:

REOPENING OF SBA TOWERS II, LLC
APPLICATION FOR A CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY AND
PUBLIC NEED FOR THE CONSTRUCTION,
MAINTENANCE AND OPERATION OF A
TELECOMMUNICATIONS FACILITY
LOCATED AT 49 BRAINERD ROAD, NIANTIC
(EAST LYME), CONNECTICUT.

DOCKET NO. 396

December 14, 2010

# INTERVENOR NEW CINGULAR WIRELESS ("AT&T") HEARING INFORMATION

Intervenor New Cingular Wireless PCS, LLC ("AT&T") submits the following hearing information to the State of Connecticut Siting Council in the captioned proceeding:

# A. <u>List of Witnesses</u>

- 1. Mr. Radu Alecsandru, Lead Design Engineer, AT&T
- 2. Mr. David Vivian, SAI
- 3. Mr. Anthony Wells, C Squared Systems, LLC

## B. Documents to be Administratively Noticed

None at this time.

# C. Exhibits to be Offered

AT&T will offer as exhibits the following:

- 1. Responses to Reopening Pre-Hearing Interrogatories, Set One, dated December 3, 2010.
- 2. Resume of Radu Alecsandru
- 3. Resume of David Vivian
- 4. Resume of Anthony Wells

AT&T reserves the right to offer additional exhibits, testimony, witnesses and administratively noticed materials as may be necessary during the hearing process.

# WITNESS RESUMES

## RADU ALECSANDRU

**EDUCATION** 

University of Connecticut, Storrs, CT Bachelor of Science in Electrical Engineering, May 2000

#### **EXECUTIVE SUMMARY**

Work experience encompasses over a decade of broad working experience in telecommunications and digital networking, including wireless voice and data communications, design, implementation, troubleshooting and optimization skills. Detailed experience with Lucent, Nokia, Ericsson, networks using GSM, CDMA and UMTS technologies.

# **EXPERIENCE**

• Cingular Wireless/At&t Mobility, Rocky Hill, CT

May 2006 – Present

Lead Design Engineer for Connecticut and Rhode Island AT&T Mobility-New England Market

- -- Formulate RF coverage objectives analysis and provide network deployment solutions based on competitive network drives, customer complaints and network modeling for AT&T's network in Connecticut and Rhode Island
- -- Responsible for the analysis of the UMTS coverage and its capacity performance based on the live network data and Monte Carlo simulations with the aim of proposing physical network modification to improve both coverage and capacity through cell site modifications and additions.
- -- UMTS new cell sites translations for Ericsson platform in the New England market
- -- GSM new cell site translations for the Connecticut submarket
- -- Site survey, decision-making for the type, location, azimuth and tilt of the antennas to be used.
- -- Computerized propagation prediction using Atoll software tool, radio model tuning, generate propagation maps, use specific map tools in MapInfo platform
- -- Lease Exhibits & Construction Drawings evaluation and correction.
- -- Drive Test data post-processing.
- -- Attend Zoning Meetings as designated RF expert.
- -- Monitor the network availability, quickly address outages with the appropriate department, observe and trend the network performance, flag the problematic aspects and propose immediate solutions in order to maximize the customer's experience.
- -- GSM/GPRS/EDGE network analysis, tuning and optimization of the Nokia BSC/BTS environment, investigate and improve network's overall and specific Key Performance Indicators, develop and implement optimization plans accordingly to maximize network's efficiency and Quality of Service.

## • LCC International (Cingular Wireless), Rocky Hill, CT

## April 2005 - May 2006

- -- Responsible for the day to day RF Design work within the RF department and as need (site analysis and design) in zoning support and special projects.
- -- Prepared and assisted in the integration of the Cingular Wireless and ex-AT&T Wireless carriers in the Connecticut Market into one more reliable and efficient network.
- -- Recommend transmitter, antenna & RF related options, various BSC/BTS parameters adjustment and retune.

## • TruePosition (Cingular Wireless), Middletown, CT

## September 2004 – April 2005

Responsible for the integration and optimization of TruePosition's E911 mobile location software/hardware for the GSM and TDMA networks. Worked with TruePosition's SCOUT and EMS client software to optimize and maintain the TruePosition's Finder Wireless Location System such that the FCC mandated location of mobiles within 100 meters 67% of the time, and within 300 meters 98% is achieved in a GSM/TDMA network, such as Cingular's network in Connecticut.

# • Sprint PCS, Wallingford, CT

#### June 2000 - August 2004

Responsible for the design in both capacity and coverage expansion along with performance optimization of Sprint PCS's wireless network in the Connecticut and Western Massachusetts region.

#### Performance Optimization:

## PCS/CDMA and CDMA 1XRTT (3G) (Lucent) System

- -- Responsible for the performance optimization of Sprint's network throughout the Hartford MTA which consists of over 450 sites currently on-air and 150 currently under design. The optimization of the network had as goal the constant improvement in the GOS and quality as specified by the Sprint PCS performance standards. The optimization decisions were based on analysis of performance pegs and measurements of the network from tools such as AutoPace, Watchmark Prospect and RFSM Statistic Reports used to monitor the statistics and performance of the network.
- -- Made all necessary changes optimization changes in the Hartford MTA on the AutoPlex 1000/5ESS Lucent Switch platform.
- -- Performed analysis of live data collected for the system using of Actix, and Agilant/HP Scanner tools for optimizing the drive data. The resulting data analysis was used in determining the course of action necessary either in software parameter changes or hardware changes such as antenna changes to improve performance and capacity or simply finding malfunctioning equipment.
- -- Performed Quality Assurance and Optimization of sites after their launch.

  <u>Design Coverage and Capacity</u>:

# PCS/CDMA and CDMA 1xRTT (3G)

-- Designed sites which improved Sprint's coverage and capacity in different morphology areas such as urban, suburban, and rural environments through out the MTA, released search area maps, evaluated possible candidates, drive testing of candidates, post processing and analyzing data from drive tests, and specifying the BTS and Repeater equipment for the sites.

- -- Created Data Bases / Spreadsheets for fast tracking of the Network implementation and its growth.
- -- Performed intermodulation and isolation calculations for various collocation sites
- -- Supported Zoning Specialists and Site Acquisition in zoning hearings for sites in the market and in the preparation of the RF packages for those zoning hearing.
- -- Conducted extensive tests and designed for alternative technologies: Repeater Technologies to integrate CDMA Repeaters in the system to cut cost and deployment time.
- -- Performed Quality Assurance for some site in the market before their turn on such as distance to fault, insertion loss, return loss based on the cable characteristics and the VSWR of the antennas.
- -- Optimized parts of the network consisting of BTS and Repeater sites.
- -- Worked with Site Acquisition and Construction in identifying Utilities to the sites and the feasibility in their construction for the treacherous and challenging terrain in the market by providing alternate configuration to sites.

# Project Management:

## **Radio Frequency Site Modifications**

-- Managed the modification of all Sprints' site for the Hartford MTA from the approved proposal to hardware acquisition from all of the external vendors, implementation logistics and contractor's management and cost negotiation to payment for materials and man hours.

## Internal network and Databases management

-- Responsible for the RF's office internal network administration including databases management and upgrades.

# TRAINING

- AT&T Silver and Bronze UMTS Certification
- Mastering UMTS Radio Networking (Award Solutions)
- Mastering HSDPA (Award Solutions)
- UMTS Radio Networks Protocols and Signaling (Award Solutions)
- HSPA Protocols and Signaling (Award Solutions)
- WCDMA RAN Functionality and Configurations (Ericsson)
- UMTS/HSPA (WCDMA) RF Design Mentoring (Award Solutions)
- Radio Frequency design for wireless telephony (Sprint/Scott Baxter Course)
- RF Performance Engineering of CDMA Systems (Lucent Technologies)
- Drive test collection and analysis (Agilant Technologies)
- RF Performance Engineering for CDMA 2000 (LCC International)
- Radio Frequency design using PlaNet (MSI International)
- Radio Frequency design using dBlanner (Marconi)
- Fiber Optic Communications (University of Connecticut)
- Telecommunications Theory and Telecommunications Lab (UCONN)

# COMPUTER SKILLS

- Programming: Pascal, Fortran, MatLab, and HTML.
- Programs: Microsoft Office, Microsoft FrontPage, Microsoft Project, Microsoft Visio, MatLab, Mathematica, SCOUT, EMS, Pspice, PlaNet, Planet EV, dBplanner, Wizard, Atoll, MapInfo, Arieso's ACP and CPT, Oracle and Electronics Workbench.
- Operating Systems: DOS, Windows, Macintosh, and UNIX.

# **David Vivian**

500 Enterprise Drive, Suite 3A Rocky Hill, CT 06067 Phone: 413-218-5042 (cell) ~ 860-513-7190 (fax) Email: david.vivian@sai-comm.com

### **OUALIFICATIONS**

Seasoned telecommunications professional. Over 14 years telecommunications siting and permitting experience in the challenging New England environment. Adept at balancing radio frequency requirements with local zoning requirements and preferences, resulting in a high success ratio and timely implementation.

Experienced manager. Strong team-builder that provides direction and scope and empowers employees and subcontractors to utilize innovative solutions to accomplish goals quickly and efficiently.

Strong financial background. As a former real estate lender and manager, always attentive to cost-benefit analysis of policies and procedures while attending to project objectives.

#### PROFESSIONAL EXPERIENCE

Site Acquisition Specialist, Site Acquisitions, Inc. (September 2009 - Present)

Responsible for the identification, leasing, zoning and permitting of sites for New Cingular Wireless, PCS (AT&T) primarily in the Connecticut and Western Massachusetts markets. Coordinates subcontractor due diligence and preparation for Connecticut Siting Council ("CSC") filings and hearing proceedings. Provides testimony at CSC proceedings.

Independent Site Development Contractor (September 2006 – August 2009)

Provided telecommunications site acquisition consultation services to various wireless carriers and site acquisition firms; including Metro PCS, Mariner Tower, Optasite, Inc., and Transcend Wireless (representing Sprint PCS).

Site Development Manager, National Grid Wireless (January 2001 – August 2006)

Responsible for the development and/or acquisition of over 45 new tower facilities throughout the New England region for both Tower Ventures and National Grid. Identified new areas of opportunity and coordinated the leasing, zoning and construction of tower facilities in the central and western Massachusetts and eastern Connecticut area.

Project Manager, American Tower Corporation (May 1999 – January 2001)

Assumed the overall management and implementation of a new tower development program throughout New England. With only limited resources, managed the successful permitting and construction of over 40 new telecommunications towers in the first full year of operation.

Zoning Manager, Wireless Facilities, Inc. (March 1998 – May 1999)

Managed a team of Zoning Specialists responsible for the zoning and permitting of a 160-site wireless telecommunications design in southern New Hampshire, Worcester County and Cape Cod, Massachusetts. Careful analysis and a high approval ratio in this challenging zoning environment were instrumental in the successful commercial launch within a one-year timeframe.

Property Specialist, Sprint PCS (June 1996 - March 1998)

Managed a site acquisition team in the identification, leasing and zoning of wireless telecommunications facilities throughout greater Boston and Cape Cod. Close coordination between engineering activities, including radio frequency analysis, architectural and engineering services and environmental testing resulted in the successful completion of nearly 100 facilities during Sprint's initial commercial launch.

Commercial Real Estate Appraiser and Manager (August 1993 – June 1996)

Managed the commercial and residential real estate appraisal operation for New England Valuation Advisors, including bidding, appraisals, data base management and marketing. As a commercial real estate appraiser for Crowley & Associates, completed real estate appraisals on a fee basis, including all types of income producing properties. Specialized in industrial, retail, office and apartment complexes.

Mortgage Loan Officer, Society for Savings & Country Bank for Savings (January 1987 – August 1993)

Managed real estate portfolios ranging from \$45 million to \$150 million, including offices, apartment complexes, retail centers and hotels. Routinely achieved the lowest delinquency rate on commercial portfolios in the department.

# **EDUCATION**

OSHA Safety Training (2005)

University of Massachusetts at Amherst (1994), M.B.A. with emphasis in finance Naval Post-Graduate School, Newport, R.I. (1981), Legal Officer Certification Naval Flight Officer, United States Navy (1979 – 1998), Commander (Retired) Colby College, Waterville, ME (1979), A.B. in Administrative Science & Math

References available upon request



Resume of: Anthony Wells

**EDUCATION:** 

Northeastern University

Master of Science in Electrical Engineering - Communications and Signal Processing

Concentration- June 1997

University of Massachusetts, Lowell

Bachelor of Science in Electrical Engineering - December 1989

#### **EXPERIENCE:**

## Managing Partner C Squared Systems

8/00 - Present

- Provide RF and software design services to the wireless industry, including preparation of RF
  coverage analyses to determine radio frequency signal propagation parameters for siting wireless
  telecommunications facilities.
- Development of custom data collection and propagation software for in-building and macro networks,
- Manage design of a digital 1900 MHz (PCS) network consisting of over 130 cell site locations in New Hampshire and Maine.
- Design and Implementation of in-building repeater systems for multiple carriers.
- Prepare documentation for and testify before Connecticut Siting Council in support of the location of new wireless communications facilities.
- Provide measurement and calculation reports to comply with conditions of approval for municipalities in Connecticut, relating to Federal Communications Commission guidelines for electromagnetic field exposure.
- Develop radio and microwave frequency electromagnetic field calculation software for use in Federal Communications Commission compliance analysis.
- Design and implement custom software applications and database solutions with mapping capability for wireless providers.
- Provide propagation analysis and optimization of propagation models for use in analysis of propagation characteristics for low antenna heights.

## Radar Systems Engineer

Raytheon - 3/98-8/00

- Developed radar systems and simulation using software languages such as C++, Matlab and FORTRAN.
- Processed radar data for use in analysis of tracking algorithms. Implemented C++ wrapper for Matlab mex-files to reduce processing time by over 70%.
- Analyzed results of tracking algorithms. Evaluated statistical cost factors and analyzed radar resource loading in relation to statistical confidence levels for tracking algorithms.
- Calibrated and modified radar simulation software to accurately represent radar hardware performance.

#### Radio Frequency Manager

Sprint PCS - 10/95 - 3/98

- Technical Manager responsible for implementation of code division multiple access technology for the New Hampshire and Maine systems.
- Designed and managed a digital 1900 MHz (PCS) network consisting of 70 cell site locations in New Hampshire and Maine.
- Oversaw testing and verification of the network to insure that propagation modeling was accurate
  and design performed as anticipated.
- Evaluated network performance for vendor compliance with contractual obligations.
- Insured compliance with Federal Communications Commission guidelines for electromagnetic field exposure for the digital network.
- Evaluated and tested accuracy of vendor propagation models and their applicability for use in system design.

### Radio Frequency Manager

#### NYNEX Mobile/Verizon Wireless - 5/90 - 10/95

- Responsible for the design and performance of an analog 800 MHz communication system consisting of over 200 cell sites in New England.
- Responsible for testing and verification of over 100 cell sites to insure accuracy of propagation models and cell site placement.
- Monitored and improved system performance for the Boston and Rhode Island systems using signal measurement equipment and propagation analysis.
- Evaluated and planned deployment of 800 MHz digital cellular system.
- Evaluated feasibility and integrated high and low power repeaters into the network where applicable.
- Designed microprocessor based automated remote call processing test equipment.
- Implemented repeaters as part of in-building network.
- Managed and optimized frequency plan as part of network optimization.

#### CERTIFICATE OF SERVICE

I hereby certify that on this day, a copy of the foregoing was sent electronically and by overnight delivery to the Connecticut Siting Council with copy to:

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Dated: December 14, 2010

Daniel M. Laub

cc:

Michele Briggs, AT&T Radu Alecsandru, AT&T

David Vivian, SAI

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