Brad Dye, Ron Mercer, Allan Angus, Vic Jackson, and Ira Wiesenfeld are friends, and colleagues who work both together, and independently, on wireline, and wireless communications projects. Following is a summary of their qualifications, and experience. They collaborate on consulting assignments, and share the work according to their individual expertise, and the amount of time they have available.

Note: We do not like Patent Trolls, *i.e.* "a person or company who enforces patent rights against accused infringers in an attempt to collect licensing fees, but does not manufacture products or supply services based upon the patents in question." We have helped some prominent law firms defend their clients against this annoyance, and would be happy to do some more of this same kind of work.

Brad Dye   *Brad Dye Consultancy*

Brad Dye was the vice president of international networks at WebLink Wireless (formerly PageMart Wireless), in Dallas, Texas. At WebLink, he was responsible for building the international portion of one of the world's largest terrestrial wireless data networks. This network, at its peak, covered 14 countries in North America, South America, Mexico, and the Caribbean. Unfortunately the company went bankrupt.

His previous position was vice president of sales, and marketing at RTS Wireless in New York. While at RTS, he invented a way to send paging traffic over the Internet using the TNPP protocol (encapsulated in TCP/IP). RTS built the product, and sold it to paging carriers worldwide. He implemented this solution at WebLink Wireless. Using the Internet, instead of costly leased-international circuits, allowed for a very cost-effective solution, to small carriers in smaller markets, so that they could become part of an international network.

Before RTS Wireless, Mr. Dye was with Motorola's Paging Products Group, where he was the manager of Infrastructure Sales, Systems Engineering, Programs Management, and Field Technical Support. He, and his team of 20+ engineers were responsible for paging infrastructure sales, and support in 47 markets in the Latin American, and Caribbean areas. Other assignments at Motorola included international market development manager

for Motorola's Paging Products Group, with responsibility for worldwide marketing of pagers, area sales manager for the two-way radio division in Brazil, Argentina, and Uruguay, and regional sales manager for Central America.

Other positions: He also worked for BBL Industries in Atlanta, Georgia as international sales manager for paging terminals, mobile telephone terminals, and voice mail systems. Glenayre Technologies later acquired BBL Industries. As the director of the international division for Spectrum Communications, and Electronics (SCE), he sold the largest paging system in the world (at that time) to the government of Taiwan — in 1986. Ericsson later acquired Spectrum Communications.

Mr. Dye has been involved in many facets of the radio communications, and electronics industries. For the past several years, he has specialized in international radio paging, voice mail, wireless data, and telemetry systems. He has traveled to over 50 countries in sales, and marketing roles, and has been involved in supplying the infrastructure for many major paging, and voice mail systems used by telephone companies, and radio common carriers throughout Europe, Scandinavia, Mexico, South America, the Middle East, and Asia.

Mr. Dye is currently a member, or a former member of the American Radio Relay League, the IEEE (the Institute of Electrical, and Electronics Engineers), the Quarter Century Wireless Association, the Radio Club of America, and the American Mensa Society. He has written many technical, and marketing papers about paging, telemetry, and wireless messaging. He has also been a frequent speaker at industry trade shows, and conventions. His popular presentation, ***The Wheel of Fortune,*** promotes the use of a radio-paging channel for non-traditional applications such as: wireless alarm reporting, radio-controlled electrical switches, information services, and electronic signs. These applications are more commonly known today as *Wireless Telemetry*. This presentation was brought up-to-date as ***The New Wheel of Fortune,*** and includes current information on two-way paging, including Wireless Data, Wireless e-mail, Wireless Telemetry, and Wireless Instant Messaging. It can be viewed at: www.braddye.com/newheel.html

His academic preparation includes four years of undergraduate study at Bob Jones University, in Greenville, South Carolina, and a total immersion Spanish study program at *El Instituto de la Lengua Española* in San José, Costa Rica. He was also on the faculty of Greenville Technical College in Greenville, South Carolina where he taught Industrial Electronics. Ongoing studies have included several management, and product-specific courses from Motorola, and other leading manufacturers of communications, and

electronics equipment. His language ability includes native English, fluent Spanish, basic Brazilian Portuguese, and some Guaraní (a South American tribal language).

He is the author, and editor of the Internet **Paging Information Resource** site: www.BradDye.com. The Federal Communications Commission licensed him as a First Class Commercial radio operator in 1974. Brad also holds an Advanced Amateur Radio license **K9IQY**, first issued to him by the FCC in 1957 as a novice license, KN9IQY. He has also operated under several other call signs in various states, and other countries. (KN4BK, KM5NK, WB4JCF, ZP5TQ, WA4VXU, WA9RVL, /TI2, /9Y4, /6Y5, /KP4, HH2FJ, /TI2, /9Y4, /6Y5, /KP4 /MM, etc.)

Currently, his main activity is editing a weekly Internet newsletter, **The Wireless Messaging News** that is read by an estimated 5,000 people in nearly 50 countries. www.braddye.com/newsletters.html.

When time permits, he accepts consulting assignments for systems design recommendations, patent litigation, market research, wireless telemetry, and wireless-related business planning. He also conducts on-site training courses on Wireless Telemetry, Paging, and other types of Wireless Messaging.

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Ron Mercer   Paging & Wireless Network Planners LLC

Ron Mercer, the founder of Paging & Wireless Network Planners LLC, is a pioneer in telecommunications engineering with more than 40 years of experience in both wireline, and wireless telecommunications.

Mr. Mercer has consulted with a number of leading wireless companies, provided expert witness testimony in several legal actions, obtained FCC Type Acceptance for new equipment designs, and co-authored the CALEA (Communications Assistance for Law Enforcement) standard for radio paging. His experience with the various protocols involved in both wireline, and wireless telecommunications (CDMA, GSM, TAP, TNPP, Golay™, FLEX™, POCSAG, ReFLEX™, T1/T3, SS7, etc.) has been widely recognized within the industry.

Previously, Mr. Mercer founded, and was President of Kerygma Technologies Inc. where he developed, and marketed equipment that integrated voice, fax, and e-mail technologies to create a suite of "Store & Forward" services today known as "Unified Messaging." He also received recognition from The Wall Street Journal in an article entitled "Leading the Charge in the Voice/Fax Messaging Field."

He was also co-founder, and President of Spectrum Communications & Electronics Inc. (SCE) that developed, and marketed radio paging, telephone answering service, voice mail, and cellular telephone infrastructure equipment worldwide.

Mr. Mercer started his career in telecommunications at Bell Canada where he gained extensive experience with a variety of PABX, Central Office, and other wireline telephone systems. At Bell Canada, he designed, and received US, and Canadian patents covering "Dial Access" radio paging systems.

Mr. Mercer received a degree in Electrical Engineering from the Montreal Technical Institute in Montreal Canada. He has been an active member of the IEEE for many years, and currently is a member of several technical committees within the wireless industry (AAPC, PTC One-Way Paging, and PTC Two-Way paging committees, Voice Mail Users Association, etc.)

PAGING & WIRELESS NETWORK PLANNERS LLC

Paging & Wireless Network Planners harnesses more than 75 years of leadership experience to offer expert support in the planning,

implementation, operation, and maintenance of a wide variety of telecommunications networks as well as specialized aid in disaster recovery, fraud prevention, and security programs assisting organizations to:

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- Emergency Repairs

- New Product Definition
- Expert Witness Testimony
- Short-Term Staffing Requirements
- Market Trial Coordination
- Competitive Analysis
- Customer Surveys & Relations
- Trade Show Coordination
- Pricing Strategy Assessment
- Interconnect Solutions
- Business Plan Creation
- RFP Preparation /Review

- Radio Coverage Testing

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Vic Jackson   ***Interconnection Services, Inc.***

Founder & President

Senior Telecommunications Consultant

With over 30 years in the telecommunications business, Vic Jackson brings clients a wealth of experience in planning, implementing, and managing both voice, and data communications systems. His current client base includes telecommunications providers, and other institutions throughout the United States. As the Interconnection Consultant to Washington D.C. law firms, and telecommunications businesses, he represents clients with all interconnection-related issues.

Vic is a nationally recognized authority on telecommunications issues making presentations before industry groups, FCC staff, Regional Bell Operating companies, and State Commissions. His background includes technical, and telecommunications systems management, including; telephone networks, cellular mobile systems, paging systems, and computer applications.

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Allan Angus

Allan Angus' first radio system was Radio Kenomadiwin, a unique 1450 kHz AM radio network established in 1969 on six Indian reserves in Northern Ontario, Canada. It remains a model for community radio worldwide.

Over the years, Mr. Angus has worked on radio communications for oil & gas telemetry, UHF/VHF land mobile, analog & digital cellular, and PCS, 1-way & 2-way paging, and GPS. Previously, he has been an officer of WebLink Wireless (Dallas), and of Trace Technologies (Omaha). At WebLink Wireless, he was responsible for the engineering design, and deployment of their nationwide ReFLEX™ network. At Trace Technologies, he oversaw development, and deployment of their assisted-GPS service offering. Mr. Angus holds several patents in the area of wireless communication. His work at Trace Technologies has lead to a $1B lawsuit filed against Qualcomm & Snaptrack.

As part of the cellular industry's efforts to standardize new digital technology beginning in the late 1980s, Mr. Angus chaired several working groups, and task groups in the Telecommunications Industry Association (TIA). These included the Ad Hoc Authentication Group (AHAG) charged with defining new methods to avoid fraud against cellular networks, and to deliver private communications over cellular telephony; the Packet Data Group, charged with supporting TCP/IP, and similar communications over cellular; the Voice Coding Group, charged with defining, and qualifying voice coding schemes for digital cellular; and the Verification, and Validation Group, charged with defining, and executing procedures to ensure the accuracy, and reliability of TIA standards documents.

Mr. Angus has also worked for various computer system, and software vendors, notably Control Data, and Western Expert Systems Technologies, at which he developed skills on CDC, and IBM mainframes, and with artificial intelligence platforms, software, and systems.

Mr. Angus holds an MBA (Entrepreneurship, 1990), MSc (EE, 1983), and BSc (Physics with EE concentration, 1979) all from the University of Calgary, Canada.
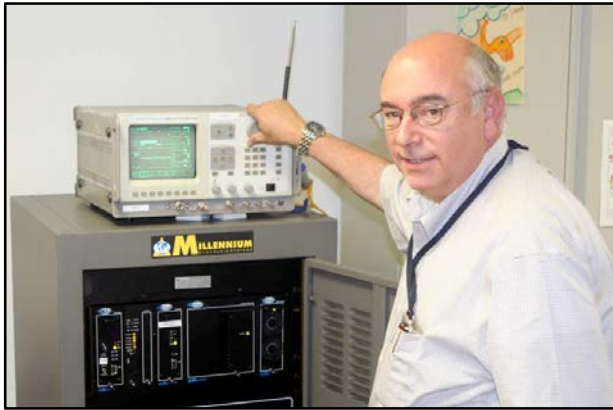
Career Skills/Knowledge:

- Intellectual Property Rights Management
- National-scale network build-outs
- Network Architecture
- Network Security
- Tech startups
- Cellular/Paging/PCS technology & standards
- Wireless standards/strategy
- Business integration of technology strategy
- RF propagation
- DSP/Scientific/Engineering programming
- Hard real-time systems
- Non-linear systems engineering/analysis
- Windows/Mac/Unix SysAdmin
- GPS/Location-based services

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Ira Wiesenfeld PE   **Ira Wiesenfeld & Associates**

Ira Wiesenfeld, P.E., CETsr, has been involved with commercial radio systems since 1966. He has a BSEE from Southern Methodist University in Dallas, TX; holds a FCC GROL, helped write the FCC GROL current version; has an *Extra Class* amateur radio license; and is a licensed professional engineer in the state of Texas. His experience has included broadcast engineering; LMR system design, installation, and maintenance; manufacturing; training on electronic, and communications systems, including PIM, and antenna line sweep testing; utilization of communications service monitors; radio paging systems; and military communications systems. Ira has helped develop many of the advanced programs for the ETA communications section, including the WCM, USMSS, FDR/LAS, and PIM certifications.

Ira is the author of the book *WIRING FOR WIRELESS SITES*, which details every part of a radio/wireless system installation; and co-author of *GENERAL COMMUNICATIONS TECHNICIAN LT, GENERAL COMMUNICATIONS TECHNICIAN LEVEL 1,* and *LEVEL 2, MOBIL COMMUNICATIONS, and ELECTRONIC INSTALLER LEVEL 1,* and *RADIO FREQUENCY INTERFERENCE A to Z.* He has also authored over 60 magazine articles on communications systems, and technology.

Overview: IWA, based in Dallas, was founded in 1977. The company's mission is to provide superior engineering, consulting, and training on communications systems for clients.

- Texas Registered Engineering Firm
- Texas State License F-001266
- *Named As One Of The Top Consulting Firms In The United States*

Branching out to IWA Technical Services, Inc. (IWATSI), Ira, and his group of engineering specialists are tops in engineering design, installation, maintenance, and training.

Pivotal Projects: The firm upgraded the Jo Daviess County, Illinois, communications systems; and designed, and installed a new

communications room for the U.S. Navy at the Atlantic Undersea Test, and Evaluation Center (AUTEC) on Andros Island, Bahamas. IWA also helped the FCC rewrite the general radiotelephone operator license test.

Competitive Edge: IWA has its own test equipment to verity that systems are built to specifications, and perform as customers expect. IWA is experienced in system design, FCC licensing, system optimization, system, and equipment training, and interference mitigation.

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