Curriculum Vitae OF GLENN A. MARIN (as of 03/2023)

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EXPERIENCE

Glenn A. Marin, a semi-retired consultant in the field of public safety emergency service call processing and dispatching systems ranging from facilities to technical system to operations. He has over 50 years experience in the application of automated systems to public safety organizations and their operational impacts with specific emphasis on computer, telephone and mobile radio communications systems. Collectively, these technologies support what is commonly known as the 9-1-1 emergency telephone system operated from facilities known as Public Safety Answering Points (PSAPs). This experience includes all the technologies associated with the design of Computer Aided Dispatch (CAD), Records Management (RMS), Jail Information Systems (JIS), Mobile Data Terminal (MDT) systems and two-way radio systems, both trunked and conventional.

Mr. Marin has extensive experience with operational policies, procedures and practices of public safety dispatch centers with both personal supervisory and management experience and in-depth interactions with several dozens of PSAP centers across the United States and limited Canadian facilities. This experience has included architectural support for the design and construction of over 30 public safety dispatch facilities.

As part of his systems analysis techniques, Mr. Marin has ridden with field patrol officers in numerous organizations, providing exposure to a broad spectrum of multiple departments' field operating and dispatching procedures.

2007 – Present

Semi-Retired Consulting Services

Since retiring in September, 2007, Mr. Marin has supported iXP Corporation in performing dispatch center performance analysis and training personnel in the use of custom-developed software supporting this analysis. Specialized radio channel performance analysis has been provided to an engineering firm designing a large regional simulcast trunked radio system. Additional work has been expended on developing an expanded version of this analysis software. A staffing analysis and expansion recommendation was performed for a regional dispatch center in the Seattle area. Mr. Marin has also provided expert witness support to several clients specified later in this resume.

2002 - 2007

iXP Corporation

As a Director with this company, Mr. Marin supported a variety of technical projects. The more significant projects included:

<u>Fire Department of the City of New York</u>. As the Chief Architect of a new fire-ground UHF conventional radio system for the department, Mr. Marin was responsible for the integration of technical and operational factors directed at meeting some of the most demanding fire suppression and emergency medical communications requirements in the world. He was also significantly involved in the design of a new Operations Command Center, including facility and communications infrastructure,

for the Department.

<u>Metropolitan Transit District – City of New York</u>. Mr. Marin provided the technical analysis for an audit of the of the bi-directional radio system to be used by the New York City Police and Fire Departments, and NYC Transit personnel.

<u>New York City Police Department.</u> Reporting directly to the Deputy Commissioner and Chief Information Officer, Mr. Marin performed a feasibility analysis for the implementation of vehicle location technology in the Department.

<u>State of Pennsylvania Statewide Radio System.</u> Mr. Marin was a senior member of the team analyzing and recommending a recovery course to a successful implementation of a statewide trunked 800 MHz radio system.

<u>State of New York Statewide Radio System.</u> Mr. Marin was a senior member of the team analyzing the \$2 billion project and contract for the office of the State Comptroller.

<u>Jefferson County, Alabama.</u> Mr. Marin was a member of the team analyzing the criminal justice and public safety communications requirements for the County. Major recommendations in the area of regionalization and consolidation were made to the County.

<u>Nassau County Police.</u> Mr. Marin was a senior member of a team supporting bidding, procuring and implementing a new computer aided dispatch system, records management system, and new communications dispatch facility.

1983 - 2002 SCHEMA SYSTEMS INC.

As president of this company, his responsibilities have encompassed the breadth of all technologies associated with the public perception of "9-1-1". This has included identifying needs, preparing feasibility studies, performing systems designs, writing system procurement specifications, and providing project management services. He has worked with hundreds of police and sheriff's departments, fire departments, emergency medical departments, and local government organizations. These organizations were supported by several dozen PSAPs (many agencies were supported by a joint PSAP). These have ranged in size from small organizations to the largest fire department and police department in the United States, as well as large international police departments.

Mr. Marin has had extensive experience in the design, development, and coordination of multiple and very large information system projects. Specific tasks assignments have included Senior Systems Engineer to a major aerospace corporation working on the Federal Aviation Administration's Advanced Automation System (AAS), a continental U.S. air traffic control upgrade program.

Additional consulting engagements have included several audits and reports involving County Jails, including assignments as a technical consultant for the National Institute of Corrections. Mr. Marin has provided technical support to State and Federal Judges who are responsible for overseeing operations of County Jails due to litigation, including an assignment as acting Court Master.

Mr. Marin as testified in several trials as a technical expert detailed later in this resume.

1964 - 1984 LOS ANGELES COUNTY SHERIFF

Mr. Marin is a retired Lieutenant from this organization. He was responsible for significant involvement in the building of a comprehensive computer aided dispatch and 2-way radio system for the Sheriff. In this role, he was one of five people who conceived, created and implemented the first Computer Aided Dispatch (CAD) software package anywhere. Mr. Marin was project manager for an automated personnel system for over 8000 personnel, as well as other automation projects.

Mr. Marin served multiple law enforcement functions in this organization, including jail officer, supervising jail officer, criminal patrol officer, traffic patrol officer, shift field supervisor (all patrol officers on a shift), auto theft investigator, watch commander and acting captain.

EDUCATION

Graduate Courses in Computer Science California State University, Fullerton (1982-1984) Fullerton, California

Master of Public Administration University of Southern California (1972) Los Angeles, California

Bachelor of Science, Police Science and Administration California State University, Los Angeles (1968) Los Angeles, California

Chemical Engineering Courses Antioch College (1960-1963) Yellow Springs, Ohio

TECHNICAL SCHOOLS AND SEMINARS

Structured Systems Design and Analysis (Yourdon Techniques),

Structured Systems Design and Analysis (general techniques),

Design and Development of Distributed Data Processing Systems,

Design and Development of Automated Personnel and Payroll Systems,

Data Base Management Systems for mainframe computers,

Data Base Management Systems for micro-computers.

Internet Systems and Protocols

Microwave Systems Engineering

Radio Systems Engineering

California State College - Fullerton (Visual Basic Certification)

California State College - Fullerton (ACCESS Data Base Certification)

Programming Classes in ORACLE - University of California Fullerton

PROFESSIONAL LICENSES

California State Commission on Peace Officers Standards and Training:

- Advanced Certificate
- Supervisory Certificate
- Management Certificate

AFFILIATIONS

Member, Association for Computing Machinery

Member, IEEE (Life Member)

AWARD

For work done in support of the City of San Francisco E91-1 Center, Mayor Willie Brown proclaimed July 6, 2001 as Glenn Marin day in San Francisco.

EXPERT WITNESS RESUME

Glenn Marin has qualified as an expert witness in both State and Federal Courts in the subject areas of jail automation and public safety dispatch systems, including computer aided dispatch automation systems. Further, Mr. Marin performed as the acting Court Master for a State jail overcrowding case in Santa Clara County, California during the middle to later 1980's. The State Superior Court judge was Eugene Premo.

Expert testimony was provided in a San Diego Superior Court case regarding dispatch center policies, procedures and training relating to 9-1-1 responses to TTD (Teletype for the Deaf) connections. I do not remember the law firm, lawyer or plaintiff in this case. The date was approximately in the late 1980's. Testimony was for the plaintiff.

Technical support was provided to the Law firm of Wilkes, Artes, Hedrick and Lane in a Federal Communications Commission action regarding radio frequency allocation for multiple clients in 1988. I made technical presentations to each FCC Commissioner, a U.S. Senator (the Senate Whip), and several Representatives. I worked with Attorney John Lane (202/457-7300) and Ramsey Woodworth (since moved to a different firm), phone 202/662-4851. Testimony was for the plaintiff. The case was the cities of Glendale, Burbank, Torrance, Compton, and Whittier (CA), versus the Federal Communications Commission. Note that these were administrative hearings, not judicial hearings.

Expert testimony was provided in the Federal 9^{th} circuit regarding a jail over-detention civil rights lawsuit. The testimony was directed at the computer system used by the jail and its relationship to other automated systems in the criminal justice process. I supported the one person law firm of Paul Bovarnic in Portland, OR., phone 503/887-2486. The date was approximately 1990 ± 2 years. Testimony was for the Plaintiff. I do not remember the name of the plaintiff.

Expert testimony was provided in the Federal 5^{th} circuit regarding technical, functional and contract requirements in 14 installations of a CAD, records management system (RMS) and mobile data terminal system (MDT). Law firm was Baker and McKenzie; 4500 Trammell Crow Center, 2001 Ross Ave., Dallas, TX. 75201. The attorney I worked directly with was K. Janée Heizer. Trial was handled by a senior partner whose name I no longer recall. Phone is 214/978-3003. Case was U.S. District Court for the Southern District of Texas, Houston Division H-91-2811. The date was approximately 1993 ± 2 years. Testimony was for the defendant. The defendant was Unisys Corporation; the plaintiff's was Martin Renick.

Expert testimony was provided in the San Diego Superior Court regarding the design, implementation and performance standards of computer aided dispatch (CAD) system. Law firm was Bergman, Wedner & Dacey; 10880 Wilshire Blvd., Westwood, CA. 90024-4101. I worked with Mr. Bergman extensively, as well as some support attorneys. Phone is 310/470-6110. I do not have the case information, but it was between SAIC Inc, and the State of California. The date was approximately 1995 ± 2 years. Testimony was for the defendant (State of California).

Expert testimony was provided in Honolulu Superior Court in a claim alleging an improper city bidding process (my firm wrote the specifications). Support was provided to the City Attorney. The contact is Clifford Morikawa, Department of Design and Construction, City of Honolulu. Phone is 808/527-6350. The date was about 1995. Testimony was for the defendant. The case was Motorola Communications Corporation versus the City and County of Honolulu.

Expert opinion was provided for the firm of Hawley Troxell Ennis & Hawley of Boise, Idaho. The attorneys I worked for were Kim Stanger and Craig Storti. telephone 888/763-4834. The case involved a dispute between the City of Boise and the County of Ada versus a vendor over the failure to implement a functional public safety records management system. The date was approximately 2000. Testimony was for the plaintiff. The case was the County of Ada (ID.) versus the PRC Corporation.

Expert testimony was provided to an International Arbitration Tribunal involving the design of a computer aided dispatch system (CAD) that had several implementations throughout the world. My client was an American firm with license rights in North America. The vendor of the system was Canadian. My testimony related to the viability and reliability of the operating system in a public safety environment. The date was about 2002. Testimony was for the plaintiff, Norman Hotz. The attorney was Robert Yorio, telephone 650/812-3400.

Expert opinion was provided to Holland & Knight. LLP regarding a radio channel licensing dispute between a Southern California city and a regional dispatch center. My client was the regional dispatch center. The attorney I worked for was Roger B. Coven, 213/896-2400. My opinion related to the viability of the client's right to the radio channel license and operationally viable methods of sharing radio frequencies between two users. Testimony was for the defendant. The case was the city of El Segundo (CA) versus the South Bay Regional Public Communications Authority. The date was 2002.

Expert opinion is being provided to the Law Offices of George T. Kelly regarding an amateur radio operator transmission interference with telephone conversations of his neighbor. The legal action was public nuisance litigation. The contact attorney is Jeany A. Lee, 562/437-0556. Testimony was for the plaintiff. The case was Potts versus Hochman. The date was 2003.

Expert opinion was provided to the Law Offices of Kernan & Henry, LLP regarding emergency medical and police dispatch center responses to an E9-1-1 call. The case was Bonita Sanada vs. Town of Plymouth, Et Al. I worked directly for attorney David Scully, 207 Bank St., Waterbury, Ct. 06722-2156 phone 203/756-8961. My opinion related to issues of dispatching policies, practices and equipment as they related to response times. Three depositions occurred on 5/2/05, 8/8/05, 8/4/06. Testimony was for the Plaintiff.

Expert opinion was provided to the Law Offices of D'Amico Griffin and Pettinicchi. The case was the Estate of Kathleen Mary McQuarrie-Doucet vs. Town of Bristol Et. Al. My opinion related to police dispatch policies and practices, radio system protocols and staffing levels as they relate to coordinating police and emergency medical response to an E9-1-1 call. I worked for attorney Michael A. D'Amico at 465 Straits Turnpike, Watertown, CT. 06795 phone 860/945-6600. Testimony was for the Plaintiff.

This case was in 2008.

Law Offices of D'Amico Griffin and Pettinicchi, Watertown, CN; 2008. Dispatch operations involving the Town of Bristol, CN. CAD related activities involved coordinating speed and accuracy of data entry activities.

Expert opinion was provide to the Law Offices of Sumner, Schick & Pace LLP of Dallas Texas. The case was the civil action between the Computer Aided Dispatch vendor *Smart Cop* and the software vendor *ACS State and Local Solutions Inc.* Smart Cop was a subcontractor to ACS for a large software project involving computer aided dispatching/mobile data system and records system for the police and fire departments of Oklahoma City, a jail system for the police department, and a court system for the local judiciary. My opinion related to the lack of viability of the Smart Cop software to fulfill the requirements of the Oklahoma clients. This case was settled prior to trial. I worked for attorney Gayle Boone, at 3811 Turtle Creek Blvd, Suites 600, Dallas, TX. 75219, phone 214/965-9229. Testimony was for the Plaintiff. This case was in 2013.

Expert opinion was provided to the law offices of Schaffer, Lax, McNaughton & Chen of Los Angeles, CA. The case involved a transit agency and it's dispatch center radio communications coverage within a geographic area where a passenger generated the legal action. I worked for attorney Russell A. Franklin, 515 S. Figueroa St, #1400, Los Angeles, CA. 90071, phone 213/337-1000. Work was done for the defendant. This case was in 2015.

Expert opinion was provided to the law offices of Morris Law Firm, APC of San Diego, CA. This was the case of Sampson v. City of El Centro, et al. U.S. District Court, Southern District of California, Case No. 14-cv-1807-L (DHB). The case relates to the in-custody death of an arrested person and my testimony related to the actions of the E911 dispatch center involvement in this event. This case as settled prior to trial. I have worked directly with attorney Danielle R. Pena, 619-826-8060. Work was done for the plaintiff. This case was in 2017.

Expert opinion was provided to the law offices of Kidwell & Gallagher of Elko, NV. This was a case of the dispatch center handling of a situation resulting in the suicide of a person. I submitted an expert opinion based on the evidence, and was deposed one time by opposing counsel. I reported to Barbara Gallagher, Esq, 775/738-1000. Work was done for the plaintiff and the case was settled in in 2019.

Tech/Knowledge, Inc., Pasadena, CA. 2016. Dispatch center operations and CAD requirements for the Fire Department of the City of Los Angeles. CAD related issues involved a detailed documentation of the dispatch operations of the department, a review of a department-developed CAD procurement specification, and recommendations for significant changes and enhancements to the document. These changes were directed at increased clarity of requirements, consistency of requirements throughout the document and comprehensive inclusion of all major, minor, subtle, and derived requirement definitions.

Law offices of Schaffer, Lax, McNaughton & Chen of Los Angeles, CA.; 2015. Dispatch center operations involving the Foothill Transit Authority.

Adcomm Engineering Co., Bothell, WA., 2015. Dispatch center operations involving North East King County Regional Public Safety Communication Agency (NORCOM). CAD related activities involved a detail analysis of multiple dispatchers inputting data into the system for a specific incident, within overlapping, and random time frames, and ensuring the controlling dispatcher had accurate and time data presentation.

Tech/Knowledge, Inc., Pasadena, CA. 2016. Dispatch center operations involving San Bernardino County Consolidated Fire Agencies (CONFIRE) center. CAD related activities related to sizing increases and performance impacts from additional fire agencies being added to the system. Issues of CAD required operational constraints and procedure impacts on the incoming agencies were identified.

Law offices of Morris Law Firm, APC of San Diego, CA, 2017. Dispatch center operations involving the city of El Cajon. No CAD issues were related to this project.

Law offices of Kidwell & Gallagher of Elko, NV., 2017. Dispatch center operations involving the city of West Wendover, NV. No CAD issues were related to this project.

Washington Post Newpaper, 2020. Expert opinion was provided to reporter Dan Morse regarding a multiple 9-1-1 centers processing of a 2-State incident. Mr. Morse published multiple articles on this subject in the paper.

Communications Daily Newspaper, 2020. Expert opinion was provided to reporter Adam Bender regarding 9-1-1 operational issues in the Washington, D.C. Area. Mr. Bender published an article on this subject in the paper.

Law Office of Taylor & Ring, LLP, Manhattan Beach, CA., 2020. Dispatch center operations involving the Los Angeles County Sheriff and a civilian vehicle chase. Issues related to 9-1-1 handing of the citizen's call for service; CAD system data input and support information, 9-1-1 staff and PSAP operational policies, practices, supervision and training.

Law Office of The Van Vleck Law Firm, LLP, Los Angeles, CA. 2021. Expert opinion was provided on an alleged Labor Code violation regarding work and minimum break hours. My opinion related to dispatch policies, practice and capabilities plus providing output from a custom developed dispatch center statistical analysis software program demonstrating the probabilities of labor law violations relative to various dispatch practices and service time parameters.

Maimi Herald Newspaper, 2022. Expert opinion was provided to reporter Arron Lebowitz regarding 9-1-1 call taker response to the Champlain Towers callers at the time of the building collapse.

Law office of Matthew Soleiman, Esq., La Jolla, CA. 2022. Expert opinion was provided on a 911 dispatch process to an emergency medical event for a school student.