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LA-SafetyNet LTE System Coverage Catalina Island Detail



LA-SafetyNet LTE System Coverage North County Detail

Easygrants ID: 7835



LA-SafetyNet LTE System Coverage System Overview



LA-SafetyNet Network Diagram

Easygrants ID # 7835



BTOP Comprehensive Community Infrastructure Subscriber Estimates Template

Please complete the complete the Subscriber Estimates worksheet.

All applicants should indicate their 8-year subscriber forecasts with a breakdown by type of subscriber (residential/individual, businesses, community anchor institutions, third party service providers) and service offerings. The names of the service offerings should match those provided in the Service Offering and Competitor Data attachment, enabling reviewers to easily cross-reference between the two documents. The Year 0 column should be used to denote any existing customers within the Proposed Funded Service Area. In addition, applicants that project that they will have third party service provider customers should include a line for parties "Served by Third Party Service Providers," showing an estimate of how many residential/individual, community anchor institution, and business customers will be served by those service providers, as demonstrated in the example below. At the bottom of the table, applicants should provide customer totals across all service offerings, with and without customers indirectly served through a third party service provider (if applicable). Applicants should also include a brief discussion of their methodology for deriving these estimates.

In contrast to several other attachment templates in this application, the data provided via this template will NOT be subject to automated processing. Applicants are permitted to modify the template layout in order to provide the most effective presentation of the date for their specific project, but such modifications are generally discourages. Applicants should, in any case, ensure that they provide at least as much detail as the provided templates requires. To the extent that you modify these templates, please ensure that the print layouts are adjusted so that rows do not break across pages in a manner that will be difficult to understand. It is recommended that you provide these documents in PDF format when submitting a copy of your application on an appropriate electronic medium, such as a DVD, CD-ROM, or flash drive.

EXAMPLE

Name of Service Offering	Customor Tuno	Year 0	Cumulative/		Yea	ar 1		Year 2				
Name of Service Offering	Offering Customer Type		Net Add	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	
	Community Anchor Inst.	0	Cumulative	0	0	0	0	5	10	17	26	
	Community Anchor Hist.	U	Net Add	0	0	0	0	5	5	7	9	
Mega-Metro E - 100 Mbps	Business	0 -	Cumulative	0	0	0	0	12	27	52	82	
Mega-Metro L - 100 Mbps			Net Add	0	0	0	0	12	15	25	30	
	Third Party Service Provider	0	Cumulative	0	0	0	0	1	2	4	6	
			Net Add	0	0	0	0	1	1	2	2	
	Indirect - Res./Ind.	0	Cumulative	0	0	0	0	1000	3000	5000	10000	
			Net Add	0	0	0	0	1000	2000	2000	5000	
Served by Third Party Service	Indianat During an	0	Cumulative	0	0	0	0	2	8	18	30	
Providers	Indirect - Business	0	Net Add	0	0	0	0	2	6	10	12	
	Indirect - Com. Anchor Inst.	0	Cumulative	0	0	0	0	0	2	3	5	
		0	Net Add	0	0	0	0	0	2	1	2	

Name of Service Offering	Customer Tune	Year 0	Cumulative/	Year 1			Year 2				Year 3				
Name of Service Offering	Customer Type	rear u	Net Add	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
LA SAFETY NET LAST MILE	Community Anchor Inst.	0	Cumulative						1					6000	12000
LA SAFETT NET LAST MILE	community Anchor Inst.	0	Net Add											6000	6000
	Community Anchor Inst.	0	Cumulative												
	Community Anchor Inst.	0	Net Add												
	Community Anchor Inst.	0	Cumulative												
	Community Anchor Hist.	0	Net Add												
	Community Anchor Inst.		Cumulative												
	Community Anchor Hist.		Net Add												
L.A. SAFETY NET MIDDLE MILE	Community Anchor Inst.		Cumulative					25	50	75	100	125	150	175	204
	Community Anchor mst.		Net Add					25	25	25	25	25	25	25	29
	Community Anchor Inst.		Cumulative										 		
	community Anchor mst.		Net Add												
			Cumulative						<u> </u>	İ		<u> </u>	İ		
			Net Add												
	Residential/Individual		Total												
Cumulative Totals - Last Mile	Business		Total												
Cumulative Totals - Last Nine	Community Anchor Inst.		Total						<u> </u>					6000	12000
	Third Party Service Provider		Total						1						
	Residential/Individual		Total												
Cumulative Totals Middle Mile	Business		Total					25	50	75	100	125	150	175	204
	Community Anchor Inst.		Total												

Table of Customer Types

Residential/Individual
Business
Community Anchor Inst.
Third Party Service Provider
Indirect - Res./Ind.
Indirect - Business
Indirect - Com. Anchor Inst.

Methodology:

The LA-SafetyNet Last Mile section references three groups of subscribers, all categorized as Community Anchor Institutions: 1) LA-RICS member First Responders (law enforcement, fire, and EMS), 2) LA-RICS member Second Responders (public works, engineering departments, transportation agencies, etc.), and 3) Non LA-RICS First Responders (for example, Los Angeles Based Federal public safety personnel).

LA-RICS First Responders subscribers are listed on the first Community Anchor Institution Line. Second Responders are listed on the second Community Anchor Institution Line. Non LA-RICS responders are listed in the third Community Anchor Institution Line.

In accordance with the build-out timeline, LA-RICS first responders will be phased onto the system in years 3 and 4. These users have first priority on the system, but will be loaded onto the system over two years in order to manage training and installation needs. Likewise, second responders and non-LA-RICS first responders will be loaded onto the system over 8 quarters in years 5 and 6.

LA-SafetyNet Middle Mile section refers to actual Community Anchor Institutions such as fire stations, sheriff's stations, and hospitals, rather than individual users. Middle mile connectivity will be focused on those 204 sites that will host LTE sites. Following the build-out timeline, these sites will be linked to the middle mile network in years 2 and 3 of the project.

Name of Service Offering	Customer Type	Year 4			Year 5				Year 6				
Name of Service Offering		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
LA SAFETY NET LAST MILE	Community Anchor Inst	18000	24000	30000	34000	34000	34000	34000	34000	34000	34000	34000	34000
LA SAFETT NET LAST WILL	Community Anchor Inst.	6000	6000	6000	4000	0	0	0	0	0	0	0	0
	Community Anchor Inst					2690	5380	8070	10760	13450	16140	18830	21500
						2690	2690	2690	2690	2690	2690	2690	2670
	Community Anchor Inst.					1560	3120	4680	6240	7800	9360	10920	12500
	community Anchor mst.					1560	1560	1560	1560	1560	1560	1560	1580
	Community Anchor Inst.												
L.A. SAFETY NET MIDDLE MILE	Community Anchor Inst.	204	204	204	204	204	204	204	204	204	204	204	204
		0	0	0	0	0	0	0	0	0	0	0	0
	Community Anchor Inst.												
	Residential/Individual												
Cumulative Totals - Last Mile	Business												
Cumulative Totals - Last Mile	Community Anchor Inst.	18000	24000	30000	34000	38250	42500	46750	51000	55250	59500	63750	68000
	Third Party Service Provider												
	Residential/Individual												
Cumulative Totals Middle Mile	Business	204	204	204	204	204	204	204	204	204	204	204	204
	Community Anchor Inst.									 			

Table of Customer Types

Residential/Individual Business Community Anchor Inst. Third Party Service Provider Indirect - Res./Ind. Indirect - Business Indirect - Com. Anchor Inst.

Name of Service Offering	Customer Tune		Yea	ar 7			Year 8				
Name of Service Offering	Customer Type	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4		
LA SAFETY NET LAST MILE	Community Anchor Inst.	34000	34000	34000	34000	34000	34000	34000	34000		
LA SAFETT NET LAST MILL	community Anchor Hist.	0	0	0	0	0	0	0	0		
	Community Anchor Inst.	21500	21500	21500	21500	21500	21500	21500	21500		
	community Anchor mst.	0	0	0	0	0	0	0	0		
	Community Anchor Inst.	12500	12500	12500	12500	12500	12500	12500	12500		
	community Anchor mst.	0	0	0	0	0	0	0	0		
	Community Anchor Inst.										
L.A. SAFETY NET MIDDLE MILE	Community Anchor Inst.	204	204	204	204	204	204	204	204		
		0	0	0	0	0	0	0	0		
	Community Anchor Inst.										
	Residential/Individual										
Cumulative Totals - Last Mile	Business										
Cumulative Totals - Last Mile	Community Anchor Inst.	68000	68000	68000	68000	68000	68000	68000	68000		
	Third Party Service Provider										
	Residential/Individual										
Cumulative Totals Middle Mile	Business	204	204	204	204	204	204	204	204		
	Community Anchor Inst.										

Table of Customer Types

Residential/Individual Business Community Anchor Inst. Third Party Service Provider Indirect - Res./Ind. Indirect - Business Indirect - Com. Anchor Inst.



LA-RICS Board of Directors

Board Member	Title	Entity Represented
Miguel Santana	City Administrative Officer	City of Los Angeles
Millage Peaks	Fire Chief	Los Angeles Fire Department
Charlie Beck	Police Chief	Los Angeles Police Department
Gerry Miller	Chief Legislative Analyst	City of Los Angeles
William Fujioka	Chief Executive Officer	County of Los Angeles
P. Michael Freeman	Fire Chief	Los Angeles County Fire Department
Lee Baca	Sheriff	Los Angeles County Sheriff's Department
John Shunhoff	Interim Director of Health Services	County of Los Angeles
Michael Bowman	Interim Chief of Police	Los Angeles Unified School District
Reggie Harrison	Deputy City Manager	City of Long Beach
Alex Rodriguez	Fire Chief – City of Santa Fe Springs	Los Angeles County Fire Chiefs Association
Scott Pickwith	Chief of Police – City of La Verne	Los Angeles County Police Chiefs Association
Mark Alexander	City Manager – La Canada Flintridge	Los Angeles County Independent Cities Association
Leroy Jackson	City Manager	City of Torrance
Don Pedersen	Police Chief	City of Culver City
Gregory Simay	Assistant General Manager	City of Burbank Water and Power
Kim Raney	Chief of Police	City of Covina

Current Position

Interim Director, Los Angeles Regional Interoperability Radio System Authority

Education

- Master of Science Degree, CSULB Emergency Services Administration
- Bachelor of Science Degree, CSULB Professional Studies
- Associate of Science Degree, Santa Ana College Fire Administration
- Associate of Science Degree, Santa Ana College Fire Technology
- Incident Command 400 Series (Type II) Qualified
- State Certified Fire Officer

Experience

Los Angeles County Fire Department – 2/13/1983 – Present (27 years) Los Angeles Fire Department - 12/10/1979 – 2/13/1983 (3 years)

Positional Experience (Los Angeles County Fire Department)

- Interim Director Los Angeles Regional Interoperability Radio System Authority
- Deputy Chief Central Regional Operations Bureau
- Deputy Chief Prevention Services Bureau
- Assistant Fire Chief Fire Marshal
- Battalion Chief Fire Prevention Regional Units
- Battalion Chief Field Battalion
- Fire Captain General
- Fire Captain Fire Prevention (Assignment)
- Fire Captain Fire Station (Assignment)
- Firefighter Specialist Fire Inspector
- Firefighter Specialist Engineer
- Firefighter Paramedic
- Firefighter

Other Qualifications

- Planning Section Chief
- Incident Commander
- Fire Instructor
- Emergency Medical Service
- Major Incidents
- Association Memberships
- Telecommunications Trainee

Michael Thayer

Michael Thayer, based in Woodland Hills, California, is our proposed project manager. He will act as a single point of contact and accepts ultimate responsibility for the success of this project.

Mr. Thayer is the President and co-founder of DELTAWRX and is a nationally recognized expert in public safety wireless voice, mobile data and information technology. Throughout the past 18 years, Mr. Thayer has led engagements in strategic and technical planning, system procurement, vendor selection, contract negotiations, system financing, and large systems implementation. He has been a consultant to more than 30 public safety agencies in the United States and Canada, and has held senior leadership positions in two previous consulting firms. Mr. Thayer has specific project experience in a wide variety of areas. Mr. Thayer has worked extensively on some of the largest public safety voice and data systems in the United States and Canada. He is experienced in radio, CAD and RMS systems, mobile data, and standalone and regional shared systems.

Mr. Thayer has led planning and/or implementation engagements in four states and provided technical expertise to three others. In Indiana, Mr. Thayer led the development of a statewide strategic plan, selection of a system vendor and provided engineering and project management support for implementation of the statewide wireless system. He has worked extensively with state and local agencies on this shared system, and helped develop the governance structure that led to their successful partnership. In Florida, Mr. Thayer led the selection and contract negotiations for the \$336 million Statewide Law Enforcement Radio System, which at the time was the largest public safety system in the United States. In Utah, Mr. Thayer assisted the State in developing a strategic plan for UCAN, one of the first statewide communications systems that would support state and local agency users. He also led the team that developed the State's Request for Proposals and selected the system provider.

Prior to founding DELTAWRX, Mr. Thayer was a Vice President with both The Warner Group and Gartner Consulting. While with The Warner Group, Mr. Thayer developed the firm's technical expertise in public safety communications and information technology and managed many of the firm's largest projects. At Gartner, Mr. Thayer was Vice President for Public Safety Consulting.

Mr. Thayer received a Bachelor of Science degree in Electrical Engineering from the University of Notre Dame and an MBA with a concentration in Finance from the University of California at Los Angeles. He was on the Dean's list at both institutions.

Mr. Thayer has written several articles for major trade publications and is a frequent speaker at regional and national conferences. Mr. Thayer has addressed the Association of Public Safety Communications Officials (APCO), Federal Communications Commission (FCC), National Emergency Number Association (NENA), Government Technology Conference (GTC), and ENTELEC, among others.

Ronald Wong 1110 N. Eastern Avenue Los Angeles, California 90063 (323) 267-2751 RWong@isd.lacounty.gov

EXPERIENCE SUMMARY

Division Manager/Administrative Manager 13 County of Los Angeles

Manage the Radio Systems Division performing engineering, management and maintenance of Public Safety radio communications systems. The division supported sustaining engineering, operation and maintenance of the Los Angeles County Sheriff, Fire, Paramedic and General Government radio systems. Manage an annual budget of over \$12 Million with a staff of 90 consisting of managers, engineers, and technicians, administrative and clerical personnel. Directly supervise subordinate section managers and administrative staffs.

Section Manager, IT, ISD County of Los Angeles

As section manager managed a staff performing engineering, management, maintenance of telecommunications systems. Assign and evaluates the work of staff. Worked with customers, vendors and internal staff to assess the technical requirements for radio communication systems. Enforce County and departmental policies and procedures. Control the section operational budget.

Supervising Telecommunication Systems Engineer/Engineering Section Manager County of Los Angeles

Supervised ten (10) telecommunications engineers, direct and assign daily work, consults with clients, engineers, technicians, create scope of work documents (SOW), service level agreements (SLA), memorandum of understanding (MOU), manage budgets, write performance evaluations (PE), appraisal for promotability (AP), review employee performance. The engineering section performed engineering, modification, repair, maintenance, and operation of radio systems.

Senior Telecommunication Systems Engineer County of Los Angeles

Duties: Managed engineering projects, 800 MHz Countywide Integrated Communications System (CWIRS), Paramedic Communications System, designed, developed cost estimates, implemented radio networks.

Manager-Wireless Network Services Southern California Edison

Managed corporate wireless enterprise networks, including remote data, wireless, radio personal communication systems (PCS), devices. Develop budgeting, strategic planning, and evaluate emerging technologies as they apply to the corporate needs. Managed five (5) subordinate managers.

Additional Employers

Flour Daniels Corporation Government Technology Division Telecommunication Principal Engineer

McDonnell Douglas Corporation Radio Frequency Administrator

Advanced Electronics Radio Engineer/Communication Technician

Professional Affiliation

California Public-Safety Radio Association (CPRA) – President 2006 Association of Public-Safety Communications Officials (APCO) - Senior Member Radio Club of America (RCA) Region 5 800 MHz Revision Committee – Past Chairman Alternate Southern California Public Safety Radio Frequency Coordination Committee Chairman

License

General Radiotelephone Operators License Private Pilot Certificate Amateur Radio Extra Class

Education

Bachelor of Science, Electronics Engineering Northrop Institute of Technology, 1971

EXPERIENCE

Los Angeles Regional Interoperable Communications System Authority, Monterey Park, CA December 2009 - Present Government Liaison and Public Affairs

- Direct outreach and advocacy to regional partners, including local governments and regional planning bodies.
- Lead 85 authority members in developing a \$500 million plan to finance a regional communications system.
- Manage special project teams, as needed, of engineers, finance specialists, project managers and public safety staff.

Kapisa Provincial Reconstruction Team, United States Army, Bagram, Afghanistan, August 2008 - July 2009 *Governance and Rule of Law Officer*

- Directed governance efforts of a 75-person counter-insurgency team, including civilian specialists and military engineers.
- Managed a \$40 million development budget to build Afghan government capacity and legitimacy.
- Mentored Afghan officials to develop a comprehensive, 3-year provincial development budget and strategy.
- Developed, with the State and Agriculture Departments, a unified US strategy for political and economic development.
- Reduced corruption by training 198 Afghan construction companies in government contracting best practices.
- Planned and lead 29 combat patrols, commanding 20 troops per patrol during missions into contested territory.

Office of Mayor Antonio Villaraigosa, City of Los Angeles, Los Angeles, CA, October 2005 - July 2008

Homeland Security and Emergency Management Policy Director

- Lead analyst on efforts to reform the Fire Department's professional standards enforcement and recruitment programs.
- Conducted personnel and budget analysis of proposals to expand the Emergency Management Department.
- Represented the Mayor's Office at 9 City-wide Emergency Operations Center activations.
- Spearheaded a regional homeland security strategy, netting the Los Angeles area over \$150 million in federal funds.
- Negotiated with local and county public safety agencies to ensure Los Angeles received a fair share of regional grants.
- Managed to completion over 100 homeland security projects, implemented across 18 jurisdictions, totaling \$50 million.

426th Civil Affairs Battalion, United States Army, Mosul, Iraq, July 2004 - July 2005

Governance Advisor and Public Affairs Officer

- Developed first post-war assessment of Mosul's legal and political institutions to better direct US reconstruction efforts.
- Created measures of effectiveness to gauge US efforts in re-establishing Iraqi government and rebuilding infrastructure.
- Published bi-monthly press releases documenting and publicizing the battalion's development activities.

Center for Human Rights and Constitutional Law, Los Angeles, CA, February 2004- June 2004

Legalization Project Training and Outreach Coordinator

- Produced training materials to assist immigration attorneys process "late amnesty" immigration applications.
- Organized training seminars for legal professionals in 11 cities nationwide, building a network of 400 trained advocates.
- Used national print, radio, and television media to publicize a legalization opportunity to 250,000 eligible immigrants.

EDUCATION

Harvard University, Kennedy School of Government, Cambridge, MA

- Master's degree in Public Policy with a concentration in Political Action and Leadership: June 2003.
- Coursework included Strategic Management, Policy Analysis, Statistical Research, and Accounting.

Williams College, Williamstown, MA

- Bachelor of Arts Degree in Political Science and Economics, *magna cum laude*: June 1999.
- Coursework includes Microeconomics, Urban Politics, Labor Economics, Immigration Policy, and Statistics.
- Awarded Thomas J. Watson Fellowship for research on Public Education in Taiwan and South Africa.

SKILLS AND QUALIFICATIONS

- Fluent in written and spoken Spanish.
- Department of Defense Secret security clearance.
- Bronze Star Medal recipient for service in Afghanistan and Army Commendation Medal recipient for service in Iraq.

Education John E. Anderson School of Management at UCLA, Los Angeles, CA, June 2001

MBA, concentration in Entrepreneurship and Finance

Conducted a study of broadband development in Spain as a part of an Anderson-sponsored international field study for Cisco Systems. Conducted research and interviews in Spain with major broadband users. providers and developers. Presented market status and strategy options to Cisco Systems management.

University of California, Los Angeles, Los Angeles, CA, June 1985 BA, Economics/International Area Studies

Experience Los Angeles Police Department

Lieutenant II, Information Technology Bureau

LAPD representative on the Los Angeles Regional Interoperable Communication System (LA-RICS) project team. Responsibilities include ensuring the statement of requirements in the Request for Proposal meet the current and future needs of the LAPD, supporting project team tasks, managing grants, budget development and finance activity. Represent the Chief of Police on standing and ad hoc committees. Advise general managers and staff on project-related matters.

Lieutenant I. 77th Street Area

Performed the duties of patrol watch commander, administrative lieutenant, special projects lieutenant.

Sergeant II, Special Operations Support Division

- Officer in charge, Incident Command Post Unit, Emergency Operations Section. Supervised five fulltime command post and Incident Command System specialists. Provided technical and consulting support to incident commanders and their staff. Developed new incident management technology with LA-area public safety agencies.
- Managed the acquisition, maintenance and deployment of emergency equipment and vehicles, including five mobile command posts and two ACU 1000-equipped radio interoperability vehicles.

Sergeant I, West Los Angeles Area

- Watch commander, field supervisor and officer-in-charge of two small units.
- Developed and supervised the implementation of security plans for the 2001 Prime Time Emmy Awards, 2002 Holocaust Memorial Day, several anti-war demonstrations and marches.
- Department liaison to West Los Angeles Area's Community-Police Advisory Board.
- Supervised security teams during the 2000 Democratic National Convention and Y2K operation.

Sergeant I, Newton Area

- Developed firearms training programs for division of 300 officers and supervised implementation team.
- Advised Department on development of firearms and Drug Recognition Expert training programs.
- Supervised 20 officers assigned to patrol duties.

Staff Researcher, Management Services Division

- Managed research project that developed a strategic plan for the integration of all City police agencies into the Los Angeles Police Department.
- Coordinated the researching, testing and selection of new police equipment.

Police Officer

- Developed firearms training program for a division of 350 officers. Led implementation team.
- Provided field training to police recruits. Completed performance ratings.
- Assigned to various patrol divisions and specialized assignments (narcotics, firearms training, vice).
- Deployed in South Los Angeles during the 1992 riots.

November 1988 - July 1997

July 1999 - July 2005

November 2008 - Present

March 2007 – October 2008

August 2005 – February 2007

January 1998 - June 1999

August 1997 - December 1997

MARK S. WILKINS, LIEUTENANT

2525 Monterey Park, CA 91745

Work (323) 881-8275

ASSIGNMENT HISTORY

LA-RICS	July 2010 to Present
Communications and Fleet Management Bureau	
Norwalk Station	April 2008 to July 2010
Field Operation Region III	
Recruit Training Unit	April 2006 to April 2008
Leadership and Training Division	
Carson Station - Sergeant	Aug. 2003 to April 2006
Field Operations Region II	
Lomita Station - Sergeant (Loan Item)	*Nov. 2003 to April 2004*
Field Operations Region II	
Transit Services Bureau - Sergeant	April 2003 to Aug. 2003
Field Operations Region II	
Carson Station	Aug. 2002 to April 2003
Field Operations Region II	
Recruit Training Unit	May 1999 to Aug. 2002
Professional Standards and Training Division	
Carson Station	Dec. 1995 to May 1999
Field Operations Region II	
Long Beach Court	Jun. 1990 to Dec. 1995
Court Services East	
Academy	Feb. 1990 to Jun. 1990
Recruit Training Bureau	

ACCOMPLISHMENTS AND TRAINING

- Distinguished Service Medal
- Field Operations Sergeant School
- Sergeant's Supervisory School
- Field Training Officer School
- Advanced P.O.S.T. Certificate
- Sherman Block Supervisor Leadership Institute Class #224
- LASD Deputy Leadership Institute
- CNOA Clandestine Lab Investigations
- LAPD Advanced Narcotics Training
- P.O.S.T. Physical Training Instructor Course
- P.O.S.T. Instructor Development Course, (Institute of Criminal Investigations)
- P.O.S.T. Recruit Training Officer Workshop
- P.O.S.T. Scenario Testing Workshop

EDUCATION

Mount San Antonio College - Administration of Justice (AA) National University - Criminal Justice Administration (BS) Date: 2003 - 2004 2004 - 2008

Resume - John Lenihan

Education: Associate of Science (AS) – Fire Technology, Santa Ana College Bachelor of Vocational Education (BVE) – Cal State, Long Beach

Experience: 33 years in Fire Service, 29 with County of Los Angeles

Experienced in a broad spectrum of Fire/Rescue activities:

- Fire Fighter, Engineer, Captain and Battalion Chief
- Dispatch
- Air Operations Branch Director
- Licensed Paramedic
- 1670 Urban Search & Rescue with deployments to
 - Northridge Meadows Apt collapse
 - Murrah Building Bombing, Oklahoma City
 - o La Conchita mudslide
 - o Hurricane Katrina, New Orleans
- Lead the Fire Personnel since June 2006 in developing communications requirements for LA-RICS

Professional Training & Organization

ICS I-220, I-300, I-400, I-401 ICS S-215, S-270, S-290, S-330, S-370, S-390, S-404, S-430, S-470 USAR 1670 Paramedic OIC/OEC SAFECOM Emergency Response Council DHS VOIP Working Group APCO Cal State Firefighter's Association