

# State of California

## 9-1-1 Operations Manual

### CHAPTER I - STANDARDS

By Legislative authority (California Government Code, Section 53114.2), the Department of General Services, Telecommunications Division, California 9-1-1 Emergency Communications Office (9-1-1 Office) has established mandatory standards to provide the fastest, most reliable, and cost-effective telephone access to emergency services for any 9-1-1 caller in California.

The 9-1-1 Office has the responsibility to monitor all emergency communication systems, related to the delivery of a 9-1-1 call, to ensure they comply with these standards; and, authority to audit and request data on any items being funded from the State Emergency Telephone Number Account (SETNA). The entire 9-1-1 Operations Manual (9-1-1 Manual) and related California Government Code can be found on the 9-1-1 Office website, [www.td.dgs.ca.gov/services/911](http://www.td.dgs.ca.gov/services/911) (select "Publications" at the top of the page, then scroll down and select "9-1-1 Operations Manual").

A comprehensive range of recommended standards is offered on the National Emergency Number Association (NENA) website. The website includes NENA recommended technical standards for public safety answering point (PSAP) equipment and back-up power, PSAP security, PSAP operations, 9-1-1 networks, wireless carriers, and many more topics. You may reach this website at [www.nena.org](http://www.nena.org) (select "Standards and Other Documents").

#### **9-1-1 OFFICE MANDATORY STANDARDS**

In the interest of public safety and successful delivery of 9-1-1 calls in the State of California, the following standards are required:

**General Standards** – These general standards are intended to maintain clarity for the public in the proper use of "9-1-1" in a manner that supports fast and reliable access to emergency services in California. (*These standards are in alphabetical order with no priority of compliance.*)

- A. **9-1-1 Misuse** – Individuals who knowingly and intentionally disrupt or report a false crime to 9-1-1 may be charged a fine of \$1,000 to \$10,000 and/or jail time for less than one year (Penal Code Section 148.3). Individuals that willfully use 9-1-1 for any purpose other than reporting emergencies may be charged progressive fines from \$50 to \$250 (Penal Code Section 653y). Examples of this misuse include calls to 9-1-1 for driving directions, directory assistance, and to report the grass along the freeway needs to be mowed.
- B. **9-1-1 Numeral Usage** - The numerals "9-1-1" shall not be used in any way that may confuse or be misleading to the public.
- C. **9-1-1 Published Number** - The primary published emergency telephone number shall be 9-1-1 and will be the only number on the "Emergency" page of the telephone directory.
- D. **Automatic 9-1-1 Dialing** - Alarm companies or other entities that do not qualify as a public safety agency (a public agency that provides fire fighting, law enforcement, emergency medical or other emergency services) shall not program equipment to automatically dial 9-1-1.
- E. **Proper Use and Display of "9-1-1"** - Private companies, such as ambulance or other service providers, shall not use the numerals 9-1-1 in the name of their company nor may they list 9-1-1 in the telephone directory without written authorization from the PSAPs that will be affected by the listing. When 9-1-1 is authorized, the ambulance companies must also list a seven-digit telephone number for non-emergency calls.

**California 9-1-1 Network Standards** - All equipment and service providers offering 9-1-1 functionality (by means of wireless, VoIP, and other technologies in the California 9-1-1 Network) shall accommodate the most recent 9-1-1 Office policies and procedures provided in this manual and on the 9-1-1 Office website. Funding from the SETNA by the 9-1-1 Office is contingent upon adherence to the following mandatory standards. (*These standards are in alphabetical order with no priority of compliance.*)

- A. **Circuit Protection** - Protected 9-1-1 circuits shall not be opened, grounded, short-circuited, or manipulated in any way unless the appropriate PSAP has released the circuit.
- B. **Emergency Service Number (ESN)** - Every primary PSAP will have ESNs exclusively for routing landline 9-1-1 calls and ESNs exclusively for routing wireless 9-1-1 calls.
- C. **Grade of Service** - Network service providers shall take periodic service measurements on the 9-1-1 trunk groups to ensure a minimum grade of service of P.01. This means no more than one busy signal per 100 attempts. These measurements shall also be taken at the request of public safety agencies. Participating public safety agencies and the 9-1-1 Office will be notified of the results of P Level Service measurements out of compliance.
- D. **Lines/Trunks** - All 9-1-1 lines/trunks in the California 9-1-1 Network that are funded by the 9-1-1 Office must be pre-approved by the 9-1-1 Office. All 9-1-1 lines/trunks in the California 9-1-1 Network that are directly billed to and paid by the public safety agency must meet “tariff” conditions and must be reviewed by the 9-1-1 Office before service is established.
- E. **Outage Notification** - All equipment and network providers shall provide 9-1-1 Outage Notification Procedures to the 9-1-1 Office for implementation in the event of a 9-1-1 outage where the outage may cause a significant impact to the delivery of 9-1-1 calls in California. Examples include the following:
- Inability of the public to contact their local or regional PSAP by dialing “9-1-1”.
  - Inability of the PSAP to process 9-1-1 emergency calls; that is, the loss of a PSAP’s ability to perform the required 9-1-1 call transfers or communications due to 9-1-1 equipment or network failure.
  - Community isolation. Any situation that disrupts the ability of an area or community to communicate outside their local area over the 9-1-1 communications network is considered a PSAP isolation.
- F. **Trunking** - PSAP line/trunk requirements shall be determined by the number of 9-1-1 calls and specific transfer functions. All 9-1-1 calls shall receive the same level of priority and call handling. The 9-1-1 Office shall authorize added or reduced trunking based upon call volume analysis. See “Lines/Trunks” standard.

**Public Safety Answering Point (PSAP) Standards** – PSAP funding from the SETNA by the 9-1-1 Office is contingent upon adherence to the following mandatory standards. (*These standards are in alphabetical order with no priority of compliance.*)

- A. **ALI Format** - PSAPs shall accommodate the most current Automatic Location Identification (ALI) standard for the State of California, currently “Format 04”, in any equipment replacement or upgrade.

- B. **Call Answer Time Within 10 Seconds** - During the busiest hour of any shift, ten seconds shall be the maximum amount of time in which incoming 9-1-1 calls are to be answered. The State realizes that unpredictable spikes may occur and will take abnormalities into consideration when reviewing statistics.
- C. **Call Data Reporting (CDR) Connectivity** - PSAPs shall accommodate connectivity of 9-1-1 call taker CPE, funded by the 9-1-1 Office, to the CDR system within 30 days of system installation. Any intentional manipulation to the 9-1-1 call data may result in reduction of 9-1-1 Office funding.
- D. **Call Transfers** – When transferring a 9-1-1 call, procedures will be developed for advising the calling party that the call is being transferred and to remain on the line. Every effort should be made to minimize the number 9-1-1 call transfers.
- E. **Hours of Operation** - Each PSAP funded by the 9-1-1 Office shall be staffed with 9-1-1 call taker(s) and commit to answer 9-1-1 calls 24 hours per day, every day of the year, for at least five (5) years. Exception to this requirement is supported for “grandfathered” PSAPs (agencies that received 9-1-1 Office CPE funding prior to December 2001 with limited hours of operation). However, we encourage all PSAPs funded by the 9-1-1 Office in “grandfathered” status to consider consolidation or extend to full compliance with this standard.
- F. **Network Connections** - Each PSAP shall have a minimum of 2 trunks to a Selective Router and trunks will be augmented based upon maintaining a typical P.01 level of service and call volume. (This requirement exceeds the minimum recommendations by NENA.)
- G. **Nonpublished Number(s)** - Each PSAP shall have a minimum of one nonpublished 9-1-1 number for emergency call transfers.
- H. **Protective Devices** - All facilities and equipment associated with 9-1-1 service shall be provided with protective devices to prevent accidental workman contact. Each protected termination shall be clearly identified.
- I. **Transfer Numbers** - PSAPs shall provide their 10-digit emergency numbers to other entities transferring 9-1-1 calls to them, these include Satellite Service Providers (SSPs), VoIP Service Providers (VSPs), Telematic Service Providers (TSPs), Automatic Crash Notification (ACN) Service Providers, and other authorized entities.