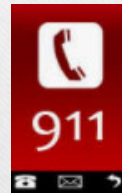


# Enhanced 9-1-1

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# What is 9-1-1

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- The first 911 system was installed in Haleyville, Alabama, in February 1968, as a way to quickly connect a subscriber to the local police station.
- It was not until 1999 that the United States Congress directed the FCC to make 911 the universal emergency number in the United States for all telephone services.
- The 911 network is now a vital part of our nation's emergency response and disaster preparedness system.
- Emergency personnel and others often learn about emergencies through 911 calls.



# What is 9-1-1



- Dialing 911 quickly connects a caller to a nearby Public Safety Answering Point (PSAP), which is a call center operated by the local government
- At the PSAP, the call is answered by a specially trained official known as a 9-1-1 dispatcher, who routes your call to local emergency medical, fire, and law enforcement agencies.
- 911 lines are designated for emergency calls, such as reporting a crime in progress, reporting a fire, or requesting an ambulance.



# What is Enhanced 9-1-1



- Enhanced 911, E-911 or E911 is a system used in North America to automatically provide the caller's location to 911 dispatchers.
- A pioneering system was in place in Chicago by the mid-1970s, providing both police and fire departments access to the source location of emergency calls.
- The dispatcher's computer receives information from the telephone company about the physical address (for landlines) or geographic coordinates (for wireless) of the caller.
- This information is used to dispatch police, fire, medical, and other services as needed.



# Call Routing

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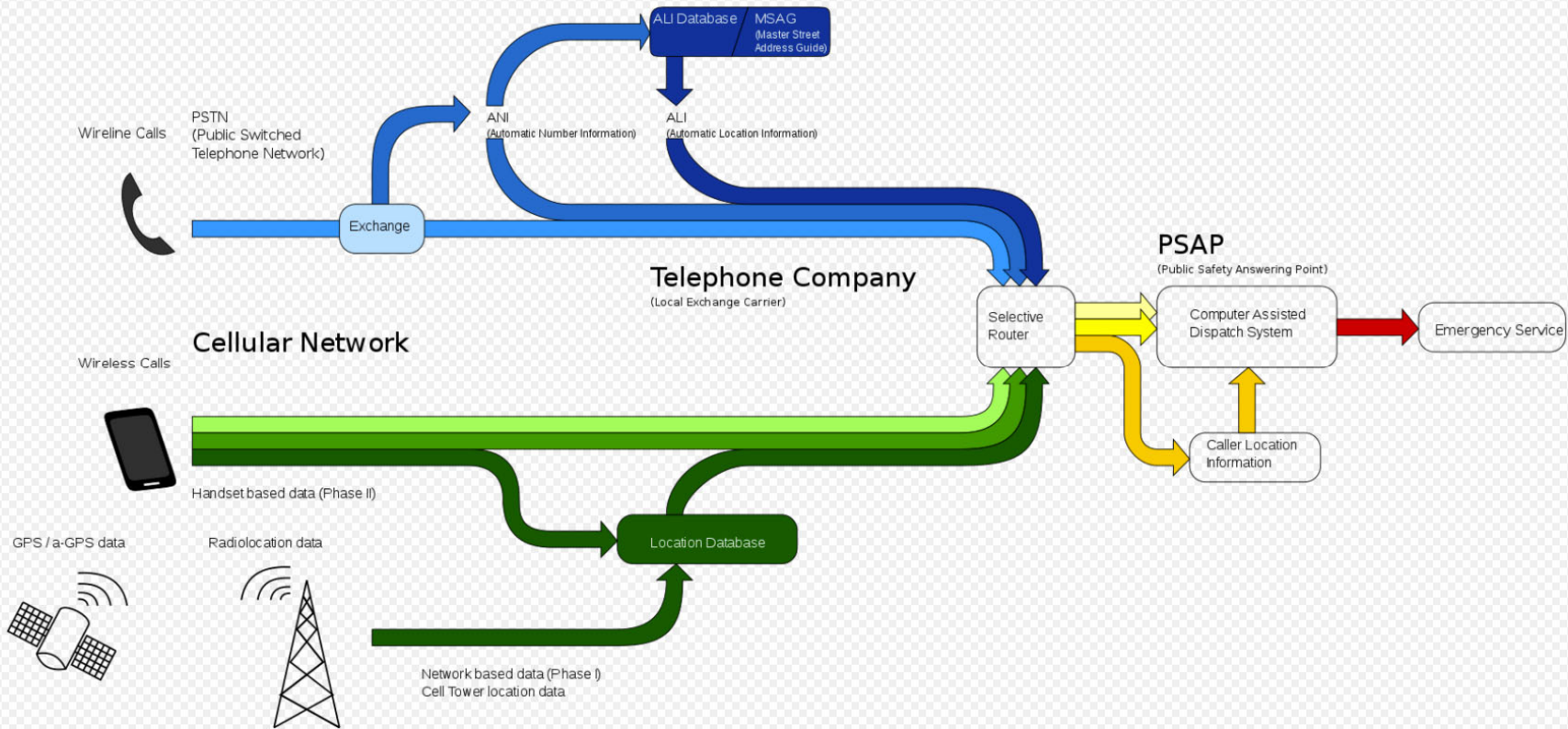
- **Landline routing**
- Calls to 911 over the public switched telephone network (PSTN) are routed to a special router (known as Selective Router, or 9-1-1 Tandem).
- The router looks for the address associated with the caller's telephone number in a database. The caller's phone number is known as an ANI.
- The database relating ANIs to addresses is known as ALI (Automatic Location Identification).
- The router then uses the address to search in the Master Street Address Guide (MSAG) for the Emergency Service Number (ESN) of the appropriate PSAP for that area, and connects the call to it.

# Call Routing

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- **Wireless routing**
- Calls from cellular phones are received via cell towers by mobile switching centers (MSC).
- The switching center automatically assigns a unique identifier to each cellular 911 call, known as a "pseudo ANI".
- The Selective Router connects the call to a PSAP based on the cell tower's location.





# Why ?



- Automated Location Information is crucial in situations
  - When a person is suffering a medical emergency and is unable to speak
  - When a person needs assistance but cant hold the phone because they are rendering CPR
  - When a person is the victim of an assault (such as Domestic Violence) and needs help but cannot risk the call being known
  - When a criminal act (Burglary, Robbery, etc.) is taking place and help is needed but the caller cannot risk the call being known



# Federal Communications Commission

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- The U.S. Federal Communications Commission (FCC) has made several requirements applicable to 911
  - Basic 911: All 911 calls must be relayed to a call center, regardless of whether or not the mobile phone user is already a customer of the network being used.
  - In 1996, the FCC issued an order requiring wireless carriers to determine and transmit the location of callers who dial 911 in two Phases.
  - The Wireless Communications and Public Safety Act of 1999, also known as the 911 Act, mandated the use of E911 and designated 911 as the universal emergency number, including both wireline and wireless phone devices.

# Federal Communications Commission

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- E911 Phase 1
  - Phase I involved sending the location of the receiving antenna for 911 calls
  - Wireless network operators must identify the phone number and cell phone tower used by callers, within six minutes of a request by a PSAP



# Federal Communications Commission

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- E911 Phase 2
  - Phase II involved sending the location of the calling telephone for 911 calls
  - 95% of a network operator's in-service phones must be E911 compliant ("location capable") by December 31, 2005. (Numerous carriers missed this deadline and were fined by the FCC).
  - Wireless network operators were to provide the latitude and longitude of callers within 300 meters, within six minutes of a request by a PSAP.
  - Accuracy rates were to meet FCC standards on average within any given participating PSAP service area by 11 September 2012 (deferred from 11 September 2008).

# Kari's Law & Ray Baum's Act

## August 2019



- Under the provisions outlined in KARI'S LAW, new and upgraded MLTS systems after February 17, 2020 must:
  - Enable the public to dial 911 from MLTS directly, without having to dial additional numbers, such as a “9,” to reach an outside line.
  - Require MLTS to send a notification to a location where someone is likely to hear or see it when a 911 call has been made.
  - Establish dispatchable location information requirements for 911 calls from MLTS, fixed telephone services, interconnected Voice over Internet Protocol (VoIP) services, mobile text, and Internet-based Telecommunications Relay Services (TRS)



# Official Letter of Notification

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## TeleCom

- Verbal Communications have been ongoing with local TeleCom providers
- Letters have been drafted for
  - TelAlaska
  - GCI
  - Optimera

## Multi-Line Telephone Systems

- Private Telecommunications Networks
  - Business (i.e. Hotels etc.) with internal switchboard
- **Dispatchable location is defined as:**
  - The street address of the calling party  
Information such as room number, floor number, or similar information necessary to adequately identify the location of the calling party.

# E911 Fund

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- Annual Report on the Collection and Use of 911 Fees
  - The New and Emerging Technologies 911 Improvement Act of 2008 (NET 911 Act) requires the Commission to submit an annual report to Congress on the collection and distribution of 911 and Enhanced 911 fees and charges by the states, the District of Columbia, U.S. territories, and Tribal Nations (states and other reporting entities).
  - NET 911 Act requires the Commission to report whether 911 fees and charges collected by states and other reporting entities are being used for any purpose other than to support 911 and Enhanced 911 (E911) services



# Why?

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- Funding is crucial for:
  - Personnel
  - Training
  - Equipment (hardware & software)
- The implementation and maintenance of the program

# Address signage standards

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- In addition to upgrading communications systems, most counties and communities in the United States have established ordinances (e.g. IRC section [R319.1](#)) requiring property owners to standardize the display of house numbers on buildings and along streets and roadways, to allow emergency personnel to more easily identify a given address day or night, even in poor weather.
- These are normally composed of reflective characters, at least 3 to 6 inches high, on a contrasting reflective background.
- It is necessary for the address number to be affixed to the building or to a separate structure such as a post, wall, fence, or mailbox, provided that such separate structure is located in front of the building and on the building's side of the street.
- Compliant signage systems are often advertised as being "E911 compliant".



# International Residential Code for One- and Two-Family Dwellings

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- **R319.1 Address numbers.**
- Buildings shall have *approved* address numbers, building numbers or *approved* building identification placed in a position that is plainly legible and visible from the street or road fronting the property.
- These numbers shall contrast with their background.
- Address numbers shall be Arabic numbers or alphabetical letters.
- Numbers shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of  $\frac{1}{2}$  inch (12.7 mm).
- Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure.

[Alaska Statutes](#).

[Title 29](#). Municipal Government

[Chapter 35](#). Municipal Powers and Duties

Section 131. 911 Surcharge.

previous: [Section 130](#). Emergency Services Communications Centers.

next: [Section 133](#). Immunity For 911 Systems.

**AS 29.35.131. 911 Surcharge.**

(a) A municipality may, **by resolution or ordinance**, elect to provide an enhanced 911 system at public safety answering points and may purchase or lease the enhanced 911 equipment or service required to establish or maintain an enhanced 911 system at public safety answering points from a local exchange telephone company or other qualified vendor. The municipality **may impose an enhanced 911 surcharge within the enhanced 911 service area**. An enhanced 911 surcharge may not exceed \$2 per month for each wireless telephone number and \$2 per month for each local exchange access line for wireline telephones. The maximum surcharge amount of \$2 provided for in this subsection may be increased above that level if the surcharge amount is approved by the voters of the enhanced 911 service area. The amount of surcharge imposed for each wireless telephone number must equal the amount imposed for each local exchange access line for a wireline telephone. An enhanced 911 service area may be all of a city, all of a unified municipality, or all or part of the area within a borough and may include the extraterritorial jurisdiction of a municipality in accordance with AS [29.35.020](#) . The governing body of a municipality shall review an enhanced 911 surcharge annually to determine whether the current level of the surcharge is adequate, excessive, or insufficient to meet anticipated enhanced 911 system needs. When a municipality imposes an enhanced 911 surcharge or the amount of the surcharge is changed, the municipality shall notify in writing the telephone customers subject to the surcharge and provide an explanation of what the surcharge will be used for.

(b) A local exchange telephone company providing service in a municipality that has imposed an enhanced 911 surcharge shall bill each month and collect the surcharge from customers in the enhanced 911 service area. A wireless telephone company that provides telephone service to wireless telephone customers with billing addresses within the enhanced 911 service area shall impose an enhanced 911 surcharge each month and collect the surcharge from customers in the enhanced 911 service area. A local exchange telephone customer may not be subject to more than one enhanced 911 surcharge on a local exchange access line for a wireline telephone. A wireless telephone customer may not be subject to more than one enhanced 911 surcharge for each wireless telephone number. A customer that has more than 100 local exchange access lines from a local exchange telephone company in the municipality is liable for the enhanced 911 surcharge only on 100 local exchange access lines.



**(c)** A local exchange telephone company or wireless telephone company shall include the appropriate enhanced 911 surcharge, stated separately and included in the total amount owed, in the bills delivered to its customers. The Regulatory Commission of Alaska may not consider the enhanced 911 surcharge as revenue of the telephone company and has no jurisdiction over an enhanced 911 system. A customer is liable for payment of the enhanced 911 surcharge in the amounts billed by the telephone company until the amounts have been paid to the telephone company.

**(d)** A local exchange telephone company or wireless telephone company that has collected the enhanced 911 surcharge shall remit the amounts collected to the municipality no later than 60 days after the end of the month in which the amount was collected. From each remittance made in a timely manner under this subsection, the telephone company is entitled to deduct and retain the greater of one percent of the collected amount or \$150 as the cost of administration for collecting the enhanced 911 surcharge. In addition, a wireless telephone company is entitled to full recovery of the recurring and nonrecurring costs associated with implementation and operation of Phase I E911 service as allowed under Federal Communications Commission proceedings entitled "Revision of the Commission's Rules to Ensure Compatibility with Enhanced 9-1-1 Emergency Calling Systems" (CC Docket No. 94-102; RM-8143).

**(e)** A local exchange telephone company or wireless telephone company is not obligated to take legal action to enforce collection of the enhanced 911 surcharge. However, if a telephone company is attempting to collect an unpaid debt from a customer, the telephone company shall also attempt to collect any unpaid enhanced 911 surcharge that the customer owes. If a customer pays a portion of a bill that includes an enhanced 911 surcharge, the amount paid shall be prorated between the telephone company and the enhanced 911 surcharge. The telephone company shall annually provide the municipality with a list of the amounts due for the nonpayment of enhanced 911 surcharges, together with the names and addresses of those customers who carry a balance that can be determined by the telephone company to be for the nonpayment of the enhanced 911 surcharges. The telephone company is not liable for uncollected amounts.

**(f)** The municipality may, at its own expense, require an annual audit of a local exchange telephone company's or wireless telephone company's books and records concerning the collection and remittance of the enhanced 911 surcharge.

**(g)** A village, as defined in AS [09.65.070](#) (e), or a public corporation established by a municipality has the powers granted to a municipality under this section.

**(h)** [Repealed, Sec. 6 Ch 55 SLA 2005].

**(i)** A municipality may only use the enhanced 911 surcharge revenue for those costs of the enhanced 911 system that are authorized in this subsection. The surcharge revenue may not be used for any capital or operational costs for emergency responses that occur after the call is dispatched to the emergency responder. The surcharge revenue may not be used for constructing buildings, leasing buildings, maintaining buildings, or renovating buildings, except for the modification of an existing building to the extent that is necessary to maintain the security and

environmental integrity of the public safety answering point and equipment rooms. The surcharge revenue may be used for the following costs to the extent the costs are directly attributable to the establishment, maintenance, and operation of an enhanced 911 system:

- (1)** the acquisition, implementation, and maintenance of public safety answering point equipment and 911 service features;
- (2)** the acquisition, installation, and maintenance of other equipment, including call answering equipment, call transfer equipment, automatic number identification controllers and displays, automatic location identification controllers and displays, station instruments, 911 telecommunications systems, teleprinters, logging recorders, instant playback recorders, telephone devices for the deaf, public safety answering point backup power systems, consoles, automatic call distributors, and hardware and software interfaces for computer-aided dispatch systems;
- (3)** the salaries and associated expenses for 911 call takers for that portion of time spent taking and transferring 911 calls;
- (4)** training costs for public safety answering point call takers in the proper methods and techniques used in taking and transferring 911 calls;
- (5)** expenses required to develop and maintain all information necessary to properly inform call takers as to location address, type of emergency, and other information directly relevant to the 911 call-taking and transferring function, including automatic location identification and automatic number identification databases.

**(j)** If a city in an enhanced 911 service area established by a borough incurs costs described under (i) of this section for the enhanced 911 system, before the borough may use revenue from an enhanced 911 surcharge, the borough and city must execute an agreement addressing the duties and responsibilities of each for the enhanced 911 system and establishing priorities for the use of the surcharge revenue. If the Department of Public Safety also provides services as part of the enhanced 911 system or uses the enhanced 911 system in that enhanced 911 service area, the department must be a party to the agreement.

**(k)** For purposes of (i) of this section, "call taker" means a person employed in a primary or secondary answering point whose duties include the initial answering of 911 or enhanced 911 calls and routing the calls to the agency or dispatch center responsible for dispatching appropriate emergency services and a person in a primary or secondary answering point whose duties include receiving a 911 or enhanced 911 call either directly or routed from another answering point and dispatching appropriate emergency services in response to the call; the term "call taker" is synonymous with the term "dispatcher" in that it is inclusive of the functions of both answering the 911 or enhanced 911 calls and dispatching emergency services in response to the calls.



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**Note to HTML Version:**

This version of the Alaska Statutes is current through December, 2007. The Alaska Statutes were automatically converted to HTML from a plain text format. Every effort has been made to ensure their accuracy, but this can not be guaranteed. *If it is critical that the precise terms of the Alaska Statutes be known, it is recommended that more formal sources be consulted.* For statutes adopted after the effective date of these statutes, see, [Alaska State Legislature](#) If any errors are found, please e-mail Touch N' Go systems at [E-mail](#). We hope you find this information useful.

This page has been updated: 04/23/2015 13:25:50

CITY OF UNALASKA  
UNALASKA, ALASKA

ORDINANCE 2021-\_\_

AN ORDINANCE OF THE UNALASKA CITY COUNCIL ESTABLISHING § 13.29.01 THE SERVICES OF THE ENHANCED 911 SYSTEM AND § 13.29.02 ENHANCED 911 CUSTOMER SURCHARGES.

BE IT ENACTED BY THE UNALASKA CITY COUNCIL, as follows:

**Section 1: Classification.** This Ordinance is a Code Ordinance.

**Section 2: Effective Date.** This ordinance shall take effect on 1 July 2021

**Section 3: § 13.29.01 ENHANCED 911 SERVICES, § 13.29.02 ENHANCED 911 CUSTOMER SURCHARGE AND REMITTANCE**

Section 13.29.01 of the Unalaska Code of Ordinances is hereby created to read as follows: [New language is underlined; and deleted language is ~~overstruck~~.]

(A) ENHANCED 911 EMERGENCY REPORTING SYSTEM

Pursuant to A.S. [29.35.131](#) through [29.35.137](#), any wireline or wireless telephone company providing service within the borough shall, together with the City of Unalaska Department of Public Safety, the City of Unalaska Office of Information Technology, and other emergency service providers using the system, cooperate in the establishment of an enhanced 911 emergency reporting system to serve the entire City of Unalaska.

(B) DESIGNATION OF SELECTIVE ROUTER DEMARCATION POINTS

The City of Unalaska hereby designates 29 Safety Way in the City of Unalaska as the 911 PSAP selective router demarcation point solely for the purposes of 911 call delivery by telecommunications carriers.

(C) ENHANCED EMERGENCY REPORTING EQUIPMENT OR SERVICES

City of Unalaska Department of Public Safety may purchase, lease or contract for any enhanced 911 equipment or services reasonably necessary to further enhance the existing 911 system at public safety answering points from either a local exchange telephone company or other qualified vendors of enhanced 911 systems.

If the enhanced 911 system is to be provided for an area that is included in more than one telephone company service area, the City of Unalaska Department of Public Safety, with the approval of the City Manager, may enter into agreements necessary to establish and operate the system.



Section 13.29.02 of the Unalaska Code of Ordinances is hereby created to read as follows: [New language is underlined; and deleted language is ~~overstruck~~.]

(A) ENHANCED 911 CUSTOMER SURCHARGE

1. Pursuant to A.S. 29.35.131 a surcharge in the amount of \$2.00 per month, shall be levied per local access line and for each wireless telephone number that is billed or sold to a customer with an address within the City of Unalaska shall be collected only to fund the enhanced 911 system. The City of Unalaska's Finance Director or his/her designee shall annually review this surcharge to determine whether the level of surcharge is adequate, excessive or insufficient to meet the anticipated enhanced 911 system needs. A wireline telephone or wireless telephone customer may not be subject to more than one 911 surcharge per local exchange access line and wireless telephone. A customer that has more than 100 wireline access lines from a wireline telephone company in the City of Unalaska is liable for the 911 surcharge only on 100 wireline access lines.
2. The telephone companies shall bill and collect the 911 surcharge from its wireline and wireless customers. The 911 surcharge billed shall be accounted for separately from other charges.
3. The telephone companies shall remit that portion of the surcharge receipts allocable to the City of Unalaska no later than 60 days after the end of the month in which the amount was collected. From each remittance made in a timely manner, the telephone company is entitled to deduct the greater of one percent of the amount collected or a total of \$150 per month as the cost of administration for collecting the 911 surcharge. The telephone company shall annually furnish a complete list of amounts due for nonpayment of surcharges, together with the names and addresses of those customers who carry a balance of what can be determined by the company to be for nonpayment of the surcharge.
4. The City of Unalaska may, at its own expense, require an annual audit of a telephone company's books and records concerning collection and remittance of the surcharge.
5. A wireline or wireless telephone customer is liable for payment of the enhanced 911 surcharge in the amounts billed by the telephone company until the amounts have been paid to the telephone company.

(B) REMITTANCE

1. On or before 60 days following the end of the month in which the surcharge was billed, the telephone company shall submit to the City of Unalaska Finance Director a return, upon forms provided by the City of Unalaska Finance Director, and submit payment for the surcharge due the City of Unalaska.

2. The return shall be signed by the agent of the telephone company and include:
  - a. the name and address of the telephone company;
  - b. the name and title of the person preparing the return;
  - c. the month being reported for which the surcharges were billed;
  - d. the amount of gross surcharges billed for the month of the return;
  - e. the deduction claimed for the surcharges previously billed and remitted to the Finance Director, but charged off as uncollectible during the month being reported;
  - f. the prorated recoveries representing the month's collection of surcharges previously written off as uncollectible;
  - g. the amount of deduction claimed for the telephone company's administrative costs to collect the surcharges, which may be the greater of \$150 or one percent of amounts collected;
  - h. the net amount of remittance due to the City of Unalaska; and
  - i. other information and supporting documentation which may be required by the City of Unalaska.

#### **Section 4: Definitions**

(A) For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

- “911 service area” or “enhanced 911 service area” means the entire borough has been designated to receive an enhanced 911 system. An area designated to receive an enhanced 911 system is not a “service area” under Article X, Section 5 of the Alaska Constitution.
- “Enhanced 911 equipment” means any equipment dedicated to the operation of, or use in, the establishment, operation or maintenance of an enhanced 911 system, including customer premises equipment, automatic number identification or automatic location identification controllers and display units, printers, cathode ray tubes, recorders, software, and other essential communication equipment.
- “Enhanced 911 system” or “system” means a telephone system consisting of network, database and enhanced 911 equipment that uses the single three-digit number, 911, for reporting a medical, fire, police, or other emergency situation, and which enables the users of a public telephone system to reach a public safety answering point to report emergencies by dialing 911. An enhanced 911 system includes the personnel required to acquire, install, operate, and maintain the system.



- “Local exchange access line” means a telephone line that connects a local exchange service customer to the wireline telephone company switching office and that has the capability of reaching local public safety agencies, but does not include a line used by a carrier to provide inter-exchange services. However, the local exchange access lines shall not include public pay phones, inter-office trunks, toll trunks, and direct inward dialing trunks.
- “Local exchange service” means the transmission of two-way interactive switched voice communications furnished by a local exchange telephone company within the City of Unalaska including access to enhanced 911 systems.
- “Local exchange telephone company” or “wireline telephone company” means the any telephone utility certified to provide local exchange service or wireline telephone service in the City of Unalaska by the Regulatory Commission of Alaska.
- “Public safety answering point” means a 24-hour local jurisdiction communications facility that receives 911 service calls and directly dispatches emergency response services or that relays calls to the appropriate public or private safety agency.
- “Surcharge” means an enhanced 911 system surcharge imposed on wireline and wireless telephones for support of an enhanced 911 system.
- “Wireless telephone company” means any telephone company that provides wireless telephone service through cellular, satellite, broadband, radio-based telephone or data transport service, and bills or sells wireless telephone service to a customer with an address within the City of Unalaska.
- “Wireless telephone” means any telephone that is not a wireline telephone that is capable of communication with another device by use of radio waves or satellite signal, which includes cellular, mobile, radio-based, and broadband telephones. Each wireless telephone number is considered a separate wireless telephone for purposes of the surcharge.
- “Wireline telephone” means any telephone that uses a local exchange access line.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on Month DD, YYYY.

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Vincent M. Tutiakoff, Sr.  
Mayor

ATTEST:

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Marjie Veeder, CMC  
City Clerk