Telecommunication Manual

A Guide to Navigating Communication Services and Consumer Rights

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INTRODUCTION

Communication Services

Communication services are the exchange of information through electronic means and refer to all types of voice, data, and video transmission. Telephone voice service, a type of communication service, is provided through a wireline, wireless or mobile phone, cable, or VoIP (Voice over Internet Protocol) technology. The type of communication service and technology is important because it has implications for affordability, reliability, and service quality. Knowing the type of technology installed also helps consumers to know where they can seek help should problems arise with the service.

About TURN

TURN works to secure and expand consumer protections and ensure that all people living in California have access to essential communication services, including telephone voice and broadband services that are reliable and affordable for today's and tomorrow's needs. TURN is a 501(c)(3) nonprofit that has operated in California since 1973.

In addition to TURN's advocacy in front of the California Public Utility Commission (CPUC), the California State Legislature, and federal agencies, TURN organizes impacted and economically vulnerable community members to share their lived experiences with decision-makers.

How to Use This Training Manual

This manual includes a baseline of knowledge related to communication services, common issues consumers face, resources for whom to contact with questions and concerns, and how to resolve complaints. This manual was developed to be a guide to inform and train advocates interested in advocating on behalf of communication consumers in California.

The goal of this manual is to educate advocates to understand consumer rights and protections and to empower the community to join the fight for fair policies.

This manual is divided into four parts:

PART I.

What You Need to Know About Communication Services

PART II.

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Part I

What You Need to Know About Communication Services

UNDERSTAND

- The advantages and disadvantages of various technologies
- Communication technology options for consumers

LEARN

- What consumer protections exist for customers
- Who to contact with questions or complaints

The type of communication service and the technology used to provide that service has implications for consumer protection, affordability, reliability, and service quality. Below is an overview of communications services consumer protections, including during a disaster. Below is an overview of consumer protections for communications services, including during a disaster. This overview also includes a discussion of the various technologies used to provide phone and broadband Internet services, and the technology's implications for affordability, reliability, and service quality.

Consumer Protections

Basic Phone Service. Consumer protections vary based on the communications service. The most protected service is Basic Phone Service; a class of phone service designed to meet the minimum communication needs of a residential customer, which generally includes local calls, toll-free calls, and access to 911. Basic Phone Service customers can make toll and long-distance calls but must pay additional charges for long-distance service or other features.

Telecommunications Consumer Bill of Rights describes the fundamental rights and principles for consumer protection. These protections are always in effect and include:

- **Choice:** right to choose a telecommunications company and service and to keep the same phone number when changing companies or services;
- **Disclosure:** right to clear, complete disclosures of all material terms and conditions;
- **Privacy:** right to privacy from unauthorized use of personal information and records, and to reject intrusive communications and technologies;
- **Enforcement and Effective Recourse:** right to participate in public policy proceedings, to be informed of what consumers and agencies can enforce, and to effective recourse for violations;
- **Accurate Bills:** right to accurate bills and dispute resolution;
- **Non-discrimination:** right to be free from unreasonable prejudice or discrimination; and
- **Public Safety:** right to access 911 emergency services, or to receive clear and complete disclosure of material limitations in accessing 911 emergency services.

Disaster Relief Consumer Protections come into effect temporarily following a government-declared state of emergency, generally for a 12-month period. Consumers may need to request the following protections from their communications company:
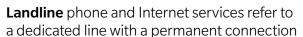
- Landline service:
  - Call Forwarding: waiver of a one-time activation fee and one-month rate for establishing and accessing call forwarding features and messaging services;
  - Installation: waiver of the installation service charge at a temporary or new permanent location and for when the customer moves back to their original location; and
  - Jack and Associated Wiring: waiver of the fee for one jack and associated wiring at a temporary location regardless of whether the customer has an inside wiring plan; waiver for the fee for up to one jack and associated wiring at the permanent location for a

customer who does not have an inside wiring plan; and waiver of the fee for up to five jacks and associated wiring at the permanent location for a customer who has an inside wiring plan.

- Cell phone service:
  - <u>Charging Stations:</u> access to device charging stations in areas of refuge from fires;
  - <u>Shared Phones:</u> cell phones for use at a temporary county or city disaster shelter;
  - <u>Payment Plans:</u> deferment or phase payment plans or extended payment dates, as allowed by the communications company; and
  - <u>Replacement Phones:</u> temporary replacement phones for consumers whose phones were lost or damaged in the disaster or evacuation, as allowed by the communications company.

Affordability, Reliability, and Service Quality

Communication services are provided through a variety of technologies. These communication services can be purchased as a standalone service or as part of a bundle with other services (i.e., phone, Internet, and TV). Below is an overview of the types of communication services and technologies as well as an overview of the implications for the affordability, reliability, and service quality of each.

Landline phone and Internet services refer to a dedicated line with a permanent connection between two locations. Landline services transmit signals converted from data through physical mediums, such as copper wire or fiber optics. Residential customers access landline service by plugging into a jack or port in a wall. Residential customers may receive landline phone and Internet service through copper wires, coaxial cables, and fiber optics.

- **Copper wires:** phone services using copper wire technology is sometimes referred to as "Plain Old Telephone Service" or POTS. When people talk about keeping their Plain Old Telephone Service, they are talking about a home phone connected through wires to make and receive landline telephone calls. Internet services using copper lines include dial-up and Digital Subscriber Line (DSL) services.

- **Cable:** phone and Internet services using coaxial cable technology are called "cable." With cable, a telephone interface installed at the customer's home converts analog signals from the customer's in-home wiring to a digital signal, which is then sent over the cable connection to the company's switching center.

- **Fiber:** phone and Internet services using fiber optics technology is called "fiber." With fiber, a voice signal is converted into data and transmitted as light pulses through the Fiber-Optic line. The receiving end then converts the light back into voice signal, allowing you to communicate with the other person.

ADVANTAGES AND DISADVANTAGES OF LANDLINE SERVICES

	Advantages:	Disadvantages:
Affordability	Eligible for state and federal low-income subsidies to support phone and Internet services if the communications company participates in those programs.	Companies are continuously raising the price for phone-only service.
Reliability	If there is a power outage, copper landline telephone service generally still works because the copper wire carries its own electricity to power the service. In case of an emergency, landline customers' addresses can be tracked through their phone numbers when calling 911. Landline service is often more reliable than cell phone, fixed-wireless, and satellite services because cell phone, fixed-wireless, and satellite signals can be unstable or unreliable due to weather conditions (for example, a storm). Some services, including medical monitoring devices, home alarms, and fall detection systems, rely on landline connections.	Cable and fiber customers need a backup battery for power outages because cable and fiber optics do not carry their own electricity.
Service Quality	Copper landline service can be really good if maintained. Cable and fiber are newer technologies that are capable of carrying larger loads of data with ease. These technologies are more resistant to corrosion and disruption.	Some phone companies choose not to maintain copper wire, resulting in poor service quality.

Key Things To Know Before A Power Outage or Disaster:

- Cable and fiber services can only operate if there is power at the customer's home and at the communications company's facilities. In California, companies must offer backup power (24 hours of standby power) for customers to purchase. In high-fire threat districts, companies must have backup power at certain company facilities in case of a power outage.

- When transitioning from the copper wire network, companies must disclose to consumers that the replaced telephone service will require power at the customer's home and that customers need to purchase backup power to use during a power outage.

- Phone companies must provide information on alternative phone service options to consumers with lines that are not working.

DIFFERENCE BETWEEN SERVICES USING COPPER, CABLE, & FIBER TECHNOLOGIES

	Copper	Cable	Fiber
Power	Service will work in the event of a power outage if the company maintains power at the company's facilities.	Unless the customer and the company have power on their respective ends, the service will not work during a power outage. Customers must pay for and charge backup batteries or have a generator to use during power outages to provide power to phone and phone service.	Unless the customer and the company have power on their respective ends, the service will not work during a power outage. Customers must pay for, and charge, backup batteries or have a generator to use during power outages to provide power to phone and phone service.
Reliability	Now reaching the end of serviceable life, needs maintenance or replacement. If wires are not maintained, susceptible to signal loss.	Newer and has a longer life cycle, requiring less frequent maintenance. Less susceptible to signal interference and loss.	Newer and has a longer life cycle, requiring less frequent maintenance. Less susceptible to signal interference and loss.
Internet Service Speeds	DSL works in areas that do not have a cable or fiber internet option because it works through the telephone network. Internet speed will depend on the distance between your home and the communications company's central office. The more distance the information has to travel, the slower the speed.	Internet connection and speed will be slower when usage is high due to network congestion because customers in the same area share the same connection bandwidth. Upload speed is generally significantly slower than download speed. Technology improvements enhance the speed, latency, and other features.	This connection is the fastest and most reliable way to connect to the Internet regardless of how far the data must travel. Fiber optics have a very large bandwidth, and the technology that supports this is continuously improving. Only available in select communities.

Wireless phone and Internet services refer to the transmission of signals through the air, without the need for wires or other physical mediums, to and from receivers. A customer's receiver can be "fixed" to a structure; for example, fixed wireless and satellite dish. A customer's receivers can be in a "mobile" device; for example, cell phones and satellite phones.

- **Fixed-Wireless:** residential customers access fixed-wireless services like landline services by plugging into a jack or port in the wall. For fixed-wireless services, an antenna is attached to or near the home to transmit signals wirelessly, unlike landline services that transmit the signals through a physical medium.

- **Satellite Dish:** residential customers access satellite dish services like landline services by plugging into a jack or port in the wall. For satellite dish services, a satellite dish is attached to or near the home to transmit signals wirelessly, unlike landline services that transmit the signals through a physical medium.

- **Cell Phone:** short for "cellular," these phone and Internet services require a cell phone to access signals transmitted through cell towers and WiFi.
- **Sat Phone:** short for "satellite," phone services using a satellite phone and satellites in space are called sat phones. The satellite phone network provides coverage in areas around Earth without cell phone networks. Generally, sat phones cannot access the Internet.

ADVANTAGES AND DISADVANTAGES OF WIRELESS SERVICES

	Advantages	Disadvantages
Affordability	Eligible for state and federal low-income subsidies to support phone and Internet services if the communications company participates in those programs.	Service plans can be expensive, especially for Internet services.
Reliability	Provides voice and broadband connectivity on the go, or in areas that may be difficult to maintain landline services.	Service may not be available everywhere – especially in more rural or remote areas. For cell phone and sat phones, customers must keep devices charged to place and receive calls.
Service Quality	Service in optimal settings can provide phone and Internet access.	Service is degraded by weather conditions (i.e., clouds), physical interference (i.e., vegetation), and network congestion (i.e., high use). Service requires reliable frequencies, commercial or battery backup power, and close proximity to towers to operate in optimal settings.

Internet-Dependent Services, such as WiFi and Voice Over Internet Protocol (VoIP) service, use an Internet connection to transmit signals. The Internet connection can be through broadband service technology.

- **WiFi** service uses an Internet connection to send wireless signals from the broadband service technology to a WiFi router and antenna to a customer's WiFi-enabled devices (i.e., cell phone or laptop).

- **Voice Over Internet Protocol (VoIP)** service uses an Internet connection to send voice calls and some other calling features from the customer's device to the broadband service technology, allowing customers to place phone calls successfully. From the customer perspective, VoIP service processes VoIP calls in the same way as a wireline phone service. However, in practice, when a customer places a VoIP call, the VoIP call is converted to digital data that travels from the caller's device through the VoIP technology, through the Internet, and then eventually converted back to a voice call to reach its destination (the call's recipient).

ADVANTAGES AND DISADVANTAGES OF VOIP SERVICES

	Advantages	Disadvantages
Affordability	Can be comparatively more affordable than a landline or wireless phone service. Often VoIP service is offered in a bundle of services. Many advanced calling features are included in the service at little or no cost (i.e., call forwarding). Eligible for state and federal low-income subsidies to support phone and Internet services if the communications company participates in those programs.	Requires the customer to maintain or otherwise access Internet service to operate the VoIP service. Often VoIP service is offered in a bundle of service.
Reliability	VoIP Calls can be made using a device that has a two-way capability, and is connected to the Internet (for example, WiFi-connected phone, computer or IP-enabled phone handset).	Customers must register their VoIP service location with the communications company for the purposes of 911 emergency service. Dependence on the Internet means the VoIP service will not work when there is an issue with access to the Internet service. Will only work during a power outage if the customer has charged backup power for the VoIP phone and the Internet service device, and the Internet service company has the necessary backup power in its network.
Service Quality	In the best conditions, voice quality is good.	A VoIP service provider may or may not own and operate the network providing Internet access. Troubleshooting VoIP service issues could require contacting multiple companies.

Key Things To Know About Public WiFi:

- **Public WiFi** is an Internet connection that can be found in public places such as coffee shops, libraries, airports, malls, hotels, restaurants, or other public spaces that allow people to access the Internet for free or at a small fee. While using public WiFi is often convenient, there are safety and privacy risks that should be considered. Taking the following steps can help protect your cybersecurity and privacy when using public WiFi:
  - When using public WiFi, users should:
    - NOT auto-connect to unknown networks
    - NOT log into any account with an app or use websites with access to sensitive or personal information (such as banking records or medical records).
    - NOT keep your device connected to the public WiFi when not in use.
  - When using public WiFi, users should:
    - Disable file sharing
    - Only visit website addresses with the preface https, with an "s" (NOT http)
    - Log out of accounts when done using them
    - Use a virtual private network (VPN)
    - Be careful of onlookers sitting nearby and able to see your password entries.

One-Way Communication Services refers to when information is transferred in one direction only, from the sender to the receiver. There is no opportunity for the receiver to give feedback to the sender. The sender can use one-way communication to inform, entertain, or instruct the audience. Examples of one-way communication include broadcast television, cable television, FM and AM radio, and public safety alerts.

Internet Speeds

Internet speed matters because it determines your ability to use online services without interruptions or significant delays.

- **Broadband Speed** refers to how fast consumers can upload or download data using their Internet connection. In reality, the advertised speed may not always match the actual speed provided by the broadband service provider.
- **Download Speed** is the speed at which information travels from various servers on the internet to your own internet-connected device.
- **Upload Speed** is the rate at which your information travels from your internet-connected device to the Internet.
- **Symmetrical speeds** is when the download and upload speeds match.
- **Latency** impacts how well your connections synchronize. High latency can distort calls and cause the user to experience a noticeable lag.
- **Jitter** is the variation in latency. High jitter can disrupt calls.

The minimum speed required by the FCC and CPUC to be considered broadband is 25 Megabits per second (Mbps) download, which is the speed necessary for most basic online activities such as checking email or visiting simple web pages. For optimum online activities, such as online learning, telehealth, and even most video streaming or video communication services, speeds above 50 Mbps download are helpful. When there is more demand to get online than the technology can handle, speeds may decrease. This can happen during peak hours, when multiple households in a community are online at the same time, or if multiple users in one house are on the same Internet connection. For two-way video calls and other applications, higher upload speeds may be required.

Higher speed Internet with low latency will:

- Smoother connection on video conferencing calls and livestreams (like Zoom).
- Strong support for multiple users on the same Wi-Fi network
- Faster upload and download speeds, and possibly lower latency

You can test your internet speed, latency, and jitter using the CalSPEED test, available for free at **https://broadbandforall.cdt.ca.gov/speed-test/**.

Part II

Who Regulates Communication Services?

UNDERSTAND

- The role of the federal government to set rules for communication service providers
- The role of the California state legislature and state government to set rules for communication service providers

LEARN

- Who to contact with complaints
- How to get involved in advocacy efforts

It is important to know who regulates the various communications services so consumers know to whom to address complaints about poor service. Different laws and government agencies regulate different communication issues and services, the companies themselves, or even different services offered by the same company. Both state and federal governments have a role. If you do not know where to start, call an agency's helpline and ask if they handle your concern. Below is an overview of government entities that influence communications services and how the public can advocate to have their voices heard; these lists are not exhaustive.[1]

Federal Government

- **Federal Legislature (Congress)** representatives draft and vote on bills that affect communications services. Contact your local representatives' office to discuss your concerns. Find your representatives here: **https://www.sos.ca.gov/elections/who-are-my-representatives**

- **Federal Communications Commission (FCC)** regulates interstate and international communication of radio, television, wireline phone, satellite, and cable. The FCC has some regulatory authority over telephone service, broadband service, emergency communication, cable services, and communications for people with disabilities. To learn more about which complaints the FCC can address, and to file a complaint, go to: **https://consumercomplaints.fcc.gov/hc/en-us**

- **Federal Trade Commission (FTC)** protect consumers from predatory or misleading business practices. For example, the FTC may investigate scams related to communications or "cramming" schemes that add charges to home phones without consumer permission. The FTC also takes reports on unwanted sales calls and maintains the National Do Not Call registry. To learn more about which complaints the FTC can address and file a complaint, go to: **http://reportfraud.ftc.gov/**

State Government

- **State Legislature** representatives draft and vote on bills that affect communications services. Contact your local representatives' office to discuss your concerns. Find your state representatives here: **https://www.sos.ca.gov/elections/who-are-my-representatives**

- **California Public Utilities Commission (CPUC)** develops and implements policies for the telephone communications and broadband markets, including for safe, affordable, and reliable communication services. To learn more about which complaints the CPUC can address and file a complaint, go to: **https://www.cpuc.ca.gov/consumer-support/file-a-complaint**

- **California Attorney General (CA AG)** addresses some consumer complaints against companies. To learn more about which complaints the CA AG can address and file a complaint, go to: **https://oag.ca.gov/contact/consumer-complaint-against-business-or-company**

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1   Other agencies include the National Telecommunications and Information Administration (NTIA) in the United States Department of Commerce; United States Department of Agriculture (specifically, the Rural Utility Service); and United States Department of Treasury.

Advocacy in Different Forums

- **Advocacy in front of the California and Federal Legislature**
  - Contact legislative representative staff to propose, support, or oppose legislation.
  - Tell your story to decision-makers,
  - Provide testimony at hearings
  - Write letters to the Governor and members of the legislature.

- **Advocacy in front of the FCC**
  - Consider making public comments on developing communication service rules.
  - Attend virtual public meetings and listen to FCC Open Commission meetings, and meeting with FCC staff (if this meeting is an "ex parte," you may need to file a letter summarizing the meeting).

- **Advocacy in front of the CPUC**
  - Consider making public comments on developing communication service rules
  - Join an in person or online public participation hearing and provide verbal comment on a specific issue before the CPUC.
  - Write public comments on the CPUC docket page of the website for any active proceeding.
  - Provide oral comments on any issue, during monthly CPUC voting meetings.

Part III

Major Policy Developments

UNDERSTAND

- Major policies that have impacted how customers receive communication services
- The impact digital disscrimination and the digital divide have had on low income commnunities

LEARN

- Initiatives to end digital discrimination
- How to get involved and have an impact

Communication Services are a Necessity

Accessing communications services is essential to modern life. So much of our daily life depends on access to phone and broadband services that not having access can affect people's health. Barriers prevent people from meaningfully accessing safe, affordable, and reliable phone and broadband services. Some of those barriers are discussed below.

Accessing Safe, Affordable, and Reliable Phone Services

Over the years, policy changes have resulted in regulations that favor communication companies at the expense of consumers. In short, these policy changes have allowed communications companies to increase rates and disinvest in low-income communities.

- **Deregulation –** In 2006, the CPUC approved the deregulation of consumer-friendly policies. For example, prior to 2006, the cost consumers paid for phone service was controlled through the regulation of rates by the CPUC; now, the prices that communications companies charge customers are determined without regard to affordability to customers.

- **Copper Wire Retirement –** Some phone companies have abandoned or stopped maintaining their copper networks. In some communities, these companies are replacing the copper wire with fiber optics, pressuring customers to switch from copper landline phone service to VoIP phone services, and failing to disclose the reliability tradeoffs. In other communities, these companies are not replacing or maintaining the copper wire, allowing services to become unusable. Complaints can be filed with the FCC if a consumer has any issues or comments about this technology transition.

- **Service Quality –** The CPUC reviews communications companies' ability to provide services that meet the CPUC's service quality standards, and assess fines to companies who fail to meet those standards. For companies who chose not to maintain their copper wires and service quality degraded before the CPUC standards, the CPUC has assessed fines year after year with little to no change in company behavior. Moreoever, these service quality standards do not currently apply to technology like wireless, VoIP, and broadband services. This means customers pay for a wireless, VoIP or Internet service and may not receive the quality of service they pay and there is little to no recourse outside of negotiating with the service provider or changing service providers.

- **Incarcerated Calling Services –** Inside carceral facilites (like prisons, jails and detention centers), people detained or incarcerated only have access to one communications company for communications services. Those communications companies have charged users extremely high per-minute rates and fees for voice calls. In 2021, the CPUC adopted rules to set rates for voice calls and limit the fees that communications companies can charge. The California Legislature has also passed laws to address this issue. The CPUC and California laws only address voice calls; more work needs to be done to address the affordability of video calls and other communications services. The FCC has also adopted rules for rates and fees but not service quality. More work needs to be done in this setting as well.

Accessing Safe, Affordable, and Reliable Broadband Services

Digital Divide and Digital Discrimination. Broadband services are not available to all people[2] in many settings, this concept is known as the "Digital Divide." For many reasons there has been a lack of broadband infrastructure investment in some communities, particularly low-income communities, and communities of color. In 2021, the U.S. Congress passed legislation requiring the FCC to prevent and eliminate "Digital Discrimination" (a concept that is possibly broader than the "Digital Divide") and research is currently underway to figure out how to identify the lack of investment in these communities and the consequences that companies may face. The CPUC has undertaken similar efforts. As discussed later below, the public can help close the Digital Divide by contributing to the accuracy of Broadband Maps, which the federal and state governments rely on to assess broadband needs.

Broadband Infrastructure. The **deployment** (the action of bringing broadband resources such as infrastructure, into effective use) of broadband infrastructure to some communities, affects the availability of services that consumers can access in their homes, schools, healthcare facilities, and in their communities. This broadband infrastructure includes infrastructure referred to as the last-mile and the middle-mile:

- <u>Last Mile</u> is the network portion of an Internet connection closest to the home, business, community institutions, etc. To use a metaphor, last-mile infrastructure is comparable to the last stretch of roads and driveway that connect your home to the highways.

- <u>Middle Mile</u> is the network portion of an Internet connection that connects the last mile to the global Internet. To use a metaphor, middle-mile infrastructure is comparable to the highways that move many people, cars, and materials between cities.

Key Things To Know About Middle Mile and Last Mile:

- Middle mile and last mile infrastructure create the building blocks for communities to have access to communication services.

- Unfortunately, investments in middle and last mile infrastructure have not been deployed equitably.

- Low-income communities in urban and rural areas remain unserved or underserved due to the inequitable deployment of this basic and necessary infrastructure.

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2   *The Pew Research Center found that communities of color and families living in rural areas continue to have slower speed access to the Internet or lack the ability to access broadband at all. By comparison, wealthier, less diverse communities tend to have access to reliable, higher-speed internet, often at lower prices. See Andrew Perrin, Pew Research Center, "Mobile Technology and Home Broadband 2021," 5 (June 2021).*

Broadband Infrastructure Deployment Grants. In an attempt to close the Digital Divide, federal and state programs pay up to 100% of the cost for a communications company to build new broadband infrastructure in targeted communities. These programs are only as effective as the communications companies' willingness to participate. Below is a list of some, though not all, of the programs to support last-mile and middle-mile deployments:

- FCC's Connect America Fund (CAF I and CAF II) provides federal money to communications companies willing to deploy infrastructure to FCC-selected communities.

- FCC's Rural Digital Opportunity Fund (RDOF) (2020) provides federal money to deploy broadband infrastructure to FCC-identified rural communities.

- U.S. Department of Agriculture's Rural Utility Service (RUS) provides federal money to deploy utility infrastructure, including broadband, to rural communities.

- CPUC's California Advanced Services Fund (CASF), Broadband Infrastructure Account provides state subsidy money to deploy broadband infrastructure

- CPUC's California Advanced Services Fund (CASF), Federal Funding Account (FFA) (2021) is a one-time infusion of federal money in California to fund the deployment of broadband infrastructure

- CPUC's California Advanced Services Fund (CASF), Public Housing Account provides grant funding to install inside wiring to provide broadband services in publicly-subsidized housing and in housing that serves low-income residents

- CPUC's Broadband Equity, Access, and Deployment (BEAD) Program (2021) is a one-time infusion of federal money in California to fund the equitable deployment of broadband infrastructure and encourage municipalities and others to become Internet service providers.

Funding for Broadband Operating Costs. In a further attempt to close the Digital Divide, state and federal programs pay communications companies' operating costs or some of their costs to serve anchor institutions (i.e., hospitals and schools). Again, these programs are only as successful as the communications companies' willingness to participate. Below is a list of just a few of these programs:

- FCC's E-Rate Program provides discounted communications services to schools and libraries.

- CPUC's California High-Cost Fund A (CHCF-A) provides financial assistance to 13 small independent telephone companies serving high-cost rural areas to keep rates affordable.

- CPUC's California High-Cost Fund B (CHCF-B) provides financial assistance to carriers of last resort to keep basic telephone service affordable in rural areas.

- CPUC's California Teleconnect Fund (CTF) provides discounted communication services to schools, community colleges, libraries, public hospitals, and non-profit organizations such as health centers, clinics, and community technology centers.

State, Municipalities, and Others Becoming Internet Service Providers. In the past, the success of the broadband infrastructure and operating cost programs is dependent on communications companies choosing to participate. The state, municipalities, school districts, and other local governments can no longer wait for communications companies to choose to

serve their communities and have instead taken steps to become internet service providers themselves. California has programs to help these entities to accomplish this goal:

- **CPUC's Local Agency Technical Assistance (LATA) Fund** provides money for municipalities and other local agencies to hire experts to conduct feasibility studies for deploying broadband infrastructure.

- **CPUC's Tribal Technical Assistance (TTA) Fund** provides money for Tribes to hire experts to conduct feasibility studies to deploy broadband infrastructure.

- **CPUC's California Advanced Services Fund (CASF), Rural and Urban Regional Broadband Consortia Account** provides funding to an organization to be the regional expert on the broadband needs of its communities and to facilitate broadband deployment to meet those needs by assisting broadband grant applicants in project development and with the application process.

- **California Department of Technology (CDT)'s Statewide Middle-Mile Initiative** provides funding to build or lease middle-mile and make that middle-mile service available to last-mile deployments serving low-income communities and other communities.

Broadband Maps. Broadband Maps are extremely important in broadband policy because broadband deployment grant programs are based on the number of unserved or underserved populations in a given area. These maps, however, are plagued with inaccuracies because they largely rely on information provided by the companies themselves, who may overstate the availability of their broadband service. One way the public can help close the Digital Divide is to review the served and unserved areas of the broadband maps and provide feedback on inaccurate designations:

- FCC's National Broadband Map: **https://broadbandmap.fcc.gov/home**

- National Telecommunications and Information Administration's (NTIA) National Broadband Needs Map: **https://broadbandusa.ntia.doc.gov/resources/data-and-mapping**

- CPUC's California Interactive Broadband Map: **https://www.broadbandmap.ca.gov/**

Broadband Adoption. Some residents who have broadband infrastructure deployed in their area do not have at-home Internet service because either they lack digital literacy skills or the cost is too expensive. In Part V, below, there is a discussion of low-income and accessible programs to reduce the affordability barrier. California also has programs to remove the digital literacy barriers:

- **CPUC's California Advanced Services Fund (CASF), Adoption Account** provides state subsidy money to fund digital literacy courses and public computer labs.

Net Neutrality. Net neutrality is the principle that requires broadband service providers to treat all internet communication equally and not to prioritize, block or charge users different rates to access the Internet based on content, website, platform, application, type of equipment, source address, destination address, or method of communication. Otherwise, broadband service providers can discriminate and act as gatekeepers who select what Internet content consumers can access and when they can access this content. Currently, California has the strongest net neutrality protections among any of the states.

Part IV

Low-Income and Accessible Programs

UNDERSTAND

- Discount programs for low income families
- What are LifeLine, ACP and DDTP programs

LEARN

- Who qualifies for low income programs
- How to apply for low income programs

Four programs provide subsidies to communications companies that serve low-income families and people with disabilities: the California LifeLine Program, the federal Lifeline Program, the federal Affordable Connectivity Program (ACP), and the California Deaf and Disabled Telecommunications Program (DDTP). Consumers can apply the benefits of each of these programs in combination to support a single line of service, or separately to support multiple lines of service.

TURN recommends that consumers eligible for California LifeLine, federal Lifeline, and federal ACP apply their California LifeLine and federal Lifeline benefits toward a cell phone service, and apply their federal ACP benefit toward at-home broadband service. This will allow a household to have the advantages of cell phone service and the advantages of at-home broadband service.

ELIGIBILITY CRITERIA FOR CALIFORNIA LIFELINE, FEDERAL LIFELINE, & FEDERAL ACP

	Eligibility Criteria	California LifeLine	Federal Lifeline	Federal ACP
Income-Based	**Federal Poverty Guideline**	At or less than 150%	At or less than 135%	At or less than 200%
Program-Based	**Medicaid (Medi-Cal)**	Yes	Yes	Yes
	Supplemental Nutrition Assistance Program (SNAP) (CalFresh)	Yes	Yes	Yes
	Supplemental Security Income (SSI)	Yes	Yes	Yes
	Federal Public Housing Assistance (Section 8)	Yes	Yes	Yes
	Veterans and Survivors Pension Benefit	Yes	Yes	No
	Tribal TANF (TTANF)	Yes	Yes	Yes
	Bureau of Indian Affairs General Assistance	Yes	Yes	Yes
	Food Distribution Program on Indian Reservation (FDPIR)	Yes	Yes	Yes
	Tribal Head Start	Yes	Yes	Yes
	Low Income Home Energy Assistance Program (LIHEAP)	Yes	No	No
	Temporary Assistance for Needy Families (TANF) • California Work Opportunity and Responsibility to Kids (CalWORKs) • Stanislaus County Work Opportunity and Responsibility to Kids (StanWORKs) • Welfare-to-Work (WTW) • Greater Avenues for Independence (GAIN)	Yes	No	No
	National School Lunch Program (NSL)	Yes	No	Yes
	Women, Infants and Children Program (WIC)	Yes	No	Yes
	Federal Pell Grant	No	No	Yes
	Participating provider's eligibility for low-income internet program	No	No	Yes

The **California LifeLine** and **Federal Lifeline** phone programs are two programs that can combine to provide discounts to low income families for wireline and wireless (cell phone) service. The discount is paid directly to the service provider and shows up on the customers bill as a bill credit.

Some subscribers are only enrolled in the California LifeLine Program because the California LifeLine Program has broader eligibility criteria than the federal Lifeline Program. Where a subscriber is only eligible for the California LifeLine Program, but not the federal Lifeline Program, the California LifeLine Fund provides an additional monthly subsidy in the amount equivalent to the amount that subscriber would have received if they qualified for the federal Lifeline program.

LifeLine Discounts

Discounted home phone services available to California LifeLine and federal Lifeline subscribers may include:

- Monthly flat rate service discount of up to $17.90*
- Monthly cell phone service discount of up to $17.90**
- Service connection discount of up to $39
- Service conversion discount for home phone services of up to $39
- Free from paying the public purpose program surcharges, CPUC's user fee, federal excise tax, local franchise taxes, and State 911 tax associated with your phone service
- Discounts on two telephone lines if you use a teletypewriter (TTY) or are part of the Deaf and Disabled Telecommunications Program. If you use a TTY, you must have immediate and continuous access to it. If the Deaf and Disabled Telecommunications Program did not give you other proof, provide a copy of a medical certificate indicating your need for a TTY is required to receive the discount on the second home phone line.

Income Qualifications for LifeLine

Household Size	Annual Income Limits
1-2	$32,500
3	$37,700
4	$45,900
Each Additional Member	$8,200
Effective June 1, 2023–May 31, 2024	

Consumers can qualify for California LifeLine and federal Lifeline by demonstrating their level of income, or by participation in certain public benefit programs (see a list of qualifying programs below). Documentation is required to show your household's total annual gross income meets the annual income limits if you are qualifying by Income-Based. A household's total annual gross income consists of money received BEFORE TAXES by everyone in your household (adults and children), from whatever source derived, whether taxable or non-taxable, including, but

not limited to: wages, salaries, interest, dividends, alimony and child support, grants, gifts, allowances, stipends, lottery winnings, inheritances, worker's compensation, unemployment and public assistance benefits, social security payments, pensions, rental income, income from self-employment, and cash payments from other sources, and all employment-related, non-cash income.

Application Process

To apply for California and federal Lifeline service, contact a participating service provider Consumers can view a list of participating communications companies at **californialifeline.com/en**. Consumers can also call the California LifeLine Call Center at 1-866-272-0349 or chat online at **Californialifeline.com/en/contact**.

Key Rules of the California LifeLine and federal Lifeline Programs:

- One subsidy-supported line per household with few exceptions:
  - Deaf and Disabled Telecommunication Program (DDTP) subscribers are eligible for a second subsidy-supported line per household
  - Where multiple households reside at the same address, each household can receive a separate subsidy-supported line by completing the Economic Household Worksheet
- A subscriber must affirmatively use the service at least once per month or risk losing their service. Affirmative use includes initiating a phone call.

The federal **Affordable Connectivity Program (ACP)** provides discounts on any broadband service offered by a participating communications company. Consumers who apply for the ACP should shop around for a broadband service that best meets their needs. The federal ACP program does not limit how much a communications company can charge a consumer for ACP-discounted services, and communications companies may try to upsell consumers on higher-priced services.

Affordable Connectivity Program Discounts

- Service discount up to $30/month
- Service discount up to $75/month on qualifying Tribal lands
- Device discount up to $100 for a laptop, tablet, or desktop computer (with a co-payment of more than $10 but less than $50)

Only one monthly service discount and one device discount is allowed per household. Not every internet company offers device discounts.

Income Qualifications for ACP

You are eligible for the ACP if your income is 200% or less than the Federal Poverty Guidelines (see the table below). The guideline is based on your household size and state.

The table below reflects the income limit by household size, which is 200% of the 2023 Federal Poverty Guidelines.

2023 FEDERAL POVERTY GUIDELINES

Household Size	48 Contiguous States, D.C., & Territories	Alaska	Hawaii
1	$29,160	$36,420	$33,540
2	$39,440	$49,280	$45,360
3	$49,720	$62,140	$57,180
4	$60,000	$75,000	$69,000
5	$70,280	$87,860	$80,820
6	$80,560	$100,720	$92,640
7	$90,840	$113,580	$104,460
8	$101,120	$126,440	$116,280
For each additional person, add:	$10,280	$12,860	$11,820
Effective April 1, 2023 through March 31, 2024			

You may have to show proof of income, like a tax return or three consecutive pays stubs, when you apply for the ACP.

To apply for the federal ACP, consumers can contact their landline or cell phone company to initiate an application, or visit: **ACPBenefit.org**.

The California **Deaf and Disabled Telecommunications Program (DDTP)** supports accessible communications services and provides accessible communications equipment. These services include relay calls. This program does not have an income threshold to qualify for services.

To apply, visit: **https://ddtp.cpuc.ca.gov/applications.aspx**

CONCLUSION

In conclusion, this telecommunications manual for advocates serves as an invaluable resource for navigating the complex landscape of modern communication systems. As advocates, your role in ensuring equitable access to telecommunications services is pivotal, and this guide equips you with comprehensive knowledge to champion the rights of marginalized individuals and communities. By understanding the technical intricacies of telecommunications, the legal frameworks that underpin them, and the socio-economic implications they entail, advocates can effectively shape policies, drive inclusivity, and empower those who rely on these systems for their well-being and progress. With the insights gained from this manual, advocates are poised to make a significant impact in promoting universal access, digital equity, and meaningful connectivity in an increasingly interconnected world.

For more information on how you can get involved in TURN's work, please visit **www.TURN.org** or find us on **Facebook**, **X**, **Instagram**, and **Vimeo**.

Acknowledgements

TURN believes we can and should live
in a society where power, broadband,
and phone services are treated as
basic rights for all families.

TURN.org/Actions

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