

TECHNOLOGIES for ACCESSING 9-1-1 SERVICE

We have more choices than ever for voice communication services. Newer technologies offer a wide range of functionality and convenience, but there are some dramatic differences when they are used to call 9-1-1 during an emergency. Therefore, it is important to be an educated consumer.

LANDLINE PHONE SERVICE

Traditional landline telephone service is the system from which 9-1-1 service has evolved. This type of service is provided by utilities that are regulated by the Federal Communications Commission (FCC) and State Commissions that set pricing, quality of service and network reliability standards. Typically, when you dial 9-1-1 your call is identified and routed through a series of connections by robust switching and signaling networks, and is delivered to your local Public-Safety center, along with your callback number and your physical street address. The system operates under its own power supply, is very accurate and is the standard in which we are accustomed when calling for emergency services. Because of the features of newer technology offerings and costs of maintaining multiple services, landline calls now only account for about 11% of 911 service in Berrien County.

- If you have a cordless phone connected to your landline service, be sure it will hold an ample charge when the power is out. Better yet, insure that at least one of your devices is a traditional phone connected directly to your service.
- Consider a wireless (cellular) service as a back-up to landline service for emergencies. Not only is it mobile, it may work when landline service is disrupted.

WIRELESS CELL PHONE SERVICE

Cellular service has grown substantially over the past decade offering the freedom to communicate from just about anywhere. Wireless calls account for about 82% of all 9-1-1 calls in Berrien County. Cell phones are looked upon as a great convenience and they provide us with the ability to call for help wherever there is signal coverage. Under FCC mandates, wireless providers have implemented technologies to assist emergency call centers, by delivering customer callback info and a location not tied to a physical address. Wireless customers should understand that this 9-1-1 call routing infrastructure is constantly evolving. Connections, voice quality, callback delivery and location identification are built upon different cellular networks that connect to the PSTN (Public Switched Telephone Network).

- Wireless phone systems are not always capable of delivering immediate data about a caller's location to the 9-1-1 center. And when they do, the location is not always accurate. Therefore, always be aware of your surroundings, so that you can describe your whereabouts to a Public-Safety dispatcher.
- Text-to-911 service is available to mobile devices when used in Berrien County, but text correspondence is slower and less precise; CALL if you can, TEXT if you can't. Be sure to provide your location when texting 911 for help, be prepared to respond to follow-up questions and follow instructions. For more information, see the Text-to-911 PSA on this web-site.
- Because cell phones are mobile, it is a great safety tool, but consider keeping basic landline phone service as a back up for situations when cell phone or VoIP services are unavailable.

Berrien County, Michigan
9-1-1 Advisory Committee

TELEMATICS-WIRELESS VEHICLE SERVICES

Consumers may purchase a unique wireless service integrated with many new vehicles. It is not only a cell phone service, but also offers vehicle tracking, diagnostics and remote control features (set off lights/horn, unlock doors, track stolen vehicles, etc.). Subscribers may contact Telematics service operators directly from their vehicles to request assistance, and some offer features enabling a direct link to 9-1-1. This includes Telematics that are capable of determining when a customer's vehicle has been in a collision, alerts an operator, and allows them to determine the location to send help.

INTERNET-BASED PHONE SERVICE

Voice over Internet Protocol (VoIP), the newest telephony service integrated to the 9-1-1 system, is referred by other names like Internet phones, Computer phones, Broadband phones, or VON (Voice Over the Net) phones. These are unregulated broadband Internet data sharing services not like landline PSTN. The system is entirely digital and is a dramatically different way of delivering voice and data through the 9-1-1 system. In general, traditional telephone service pushes an electromagnetic reflection of your voice between established PSTN connections. VoIP however, converts your voice into computer code, sends it in small data packages over multiple paths over the Internet, and puts it back together at the other end. VoIP may be sold to customers who subscribe to broadband type services. VoIP services may attach a device to your regular phone or provide specialized telephones. In order to access the 9-1-1 network, broadband Internet systems must currently interface with PSTN. In the future traditional PSTN 9-1-1 networks will be converted to IP based network technologies. For more information check out FCC info on this subject at

<https://www.fcc.gov/consumers/guides/voip-and-911-service>

Again, when it comes to accessing 9-1-1, customers must be aware of the differences in VoIP and other services. Internet broadband services come in different flavors, which present their own unique challenges when calling for help.

- Make sure your VoIP customer service representative advises you on how to register in the system so that 9-1-1 can receive vital callback and location data during your emergency call.
- Keep in mind, if you move your VoIP computer connection to another physical address, your registration information must be updated in order to accurately route your call and assist emergency dispatchers in locating you.
- VoIP customers should insure that they have adequate back up power supplies for their phones/computer connections during power outages.
- Consider maintaining alternative telephone services, such as landline or cell phone service, for situations when you lose your Internet connection.

For more information regarding 9-1-1 call routing technology, check-out the following.

<https://www.greatcall.com/greatcall/lp/technology-behind-911-calls-infographic.htm>