

Common Questions about Location Information from Cell Phones

How has 9-1-1 service for Canadian cell phone users changed since February 1, 2010?

The wireless industry is now providing general location from cellular phones information to 9-1-1 centres. Previously, a 9-1-1 call taker would have only received the cellular phone number and the location of the nearest cell site or cell tower when a call was placed to 9-1-1 from a cell phone. Now, in addition to the phone number, the call taker will receive approximate location information based on the longitude and latitude coordinates of where the handset is located. This new technology provides the approximate location of the mobile handset but does not provide an exact “pinpoint location.”

What brought about this change?

This enhancement has been in development for approximately the past two years. In February 2009, the CRTC determined that this new level of cellular 9-1-1 service should be in place wherever landline E9-1-1 service exists as of February 1, 2010.

Is the new service available everywhere in Canada?

The new E9-1-1 service is now available in most parts of the country where landline E9-1-1 service exists, including E-Comm’s service area, southwest BC. There remain nine Public Safety Answering Points (PSAPs), or 9-1-1 call centres, that are unable to accept the new location information and complete end-to-end testing with the wireless carriers. (*Areas where PSAPS have yet to complete deployment in BC is: Nelson*). Cell phone users should continue to be prepared to provide a 9-1-1 call taker with their exact location as there are limitations to Wireless Phase II.

How will I know if my service provider is providing this new enhanced 9-1-1 service in my area?

You may have already received, or will receive, information about the enhancements to 9-1-1 from your wireless service provider. Customers are encouraged to contact their wireless service provider with any questions about E9-1-1 service in their area.

Does this new service mean that 9-1-1 call centres can now pinpoint my exact location?

No. The location information provided can vary greatly from a few meters to several hundred meters, depending on the location of the call, the local /terrain environment and the technology employed. The new service does NOT provide a street address or apartment number. The location information is based on the

longitude and latitude coordinates of where the handset is located. It is also important to note that there are several limitations in the provision of handset location. For example, because GPS requires line-of-sight to the sky in order to communicate with satellites, a call placed from within a building is less likely to be able to provide handset location information using GPS, especially in areas where there are no windows such as a basement or underground parking garage. In the case of triangulation technology, which requires several surrounding cell sites or cell towers to determine the handset location, the cell sites or cell towers may be very widely spaced out in more rural areas and unable to calculate accurate handset location information. Cell phone users should be prepared to provide a 9-1-1 call taker with their exact location as best they can.

Does this new location technology mean that the police can track me through my cell phone without my knowledge?

No. The provision of the handset location information is only triggered when a call is placed to 9-1-1.

What if I don't want my location information supplied to the 9-1-1 centre? Can I turn off this feature from my cell phone?

Most cell phones on the market today are equipped with GPS functionality. GPS functionality can be turned off by cell phone users. However, the 9-1-1 call may override GPS functionality that has been turned off on a cell phone. In addition, some wireless service providers may employ non-GPS technology known as triangulation, or may be using a combination of GPS and triangulation, to provide the enhanced location information. Even though the 9-1-1 call taker may now receive handset location information, it is important for cell phone users to remember they should always try to assist the 9-1-1 call taker by providing their exact location as best they can.

Is this new service dependent on what kind of cell phone I have?

Most cell phones on the market today are designed to automatically allow the provision of handset location technology for calls to 9-1-1. Customers should contact their wireless service provider if they have any questions about their handset and/or the location identification technology used by their provider.

Do I have to make any changes to my cell phone in order to receive this new service?

No. Most cell phones on the market today are designed to automatically allow the provision of handset location technology for calls to 9-1-1. Customers should contact their wireless service provider if they have any questions about their handset and/or the location identification technology used by their provider.

Will this work on my pre-paid phone?

Yes. The location identification information will be provided to the 9-1-1 call taker if you are using either a prepaid or postpaid service.

Will 9-1-1 work if I am roaming?

Any cell phone with a BC roaming agreement will provide location coordinates to 9-1-1 if the call is placed in a community with this service. Out-of-province phones are not covered by Wireless Phase II at this time and will not provide longitude/latitude coordinates.

Anyone with a cell phone can dial 9-1-1 but only BC phones will provide location information at this time. Those with out of province contracts (Canadian and American) will provide call-back numbers. International cell phones provide no information.

Can I still call 9-1-1 from a deactivated cell phone?

Possibly. In some cases, a call to 9-1-1 from a deactivated cell phone will reach a 9-1-1 operator. However, because that phone is not associated with any particular wireless service provider, the 9-1-1 operator will not be supplied with a dialable phone number. In the event of a call disruption, the call taker would not be able to call back. The operator may receive information about the cell site or cell tower that is transmitting the call, but they will not be provided with longitude and latitude coordinates.

What happens when someone calls 9-1-1 from a cell phone in an area where there is no 9-1-1 coverage?

Not all local governments in Canada operate 9-1-1 systems. Wireless carriers endeavour to route 9-1-1 calls to an appropriate call-taking agency (the local police department, for example) in areas where no wireline 9-1-1 service exists. However, if you routinely use your mobile phone in areas where a 9-1-1 system does not exist, you should know the phone numbers for local police, fire and ambulance services.

How much did it cost the industry to implement this new service?

Every wireless service provider and public safety answering point in the country has invested substantial money and time to introduce this enhancement to 9-1-1 service. An aggregate cost of this implementation is not available at this time.

Will I see an increase in my cell phone bill as a result of this enhanced service?

Individual wireless service providers are responsible for setting all fees associated with their services. Customers should contact their wireless service provider if they have any questions about any service fees.

How many calls are made to 9-1-1 from cell phones each year in Canada?

It is estimated that more than 6 million calls a year are placed to 9-1-1 or other emergency numbers from cell phones each year in Canada.

How does Canada's E9-1-1 service compare to other countries?

Only four of the 24 EU-member countries offer enhanced handset location information that is provided in Canada. As well, in Canada, the handset location information is provided automatically to the 9-1-1 call centre, whereas in Europe the handset location information is only provided on a request-only or “pull” basis. The remaining 20 EU-member countries only provide the cell phone number and the cell site or cell tower transmitting the call. Again, the cell site or cell tower location information is on a request-only basis.

Enhanced 9-1-1 with handset location information has been rolling out in the US over the past 8 years. Some areas of the US still do not have this enhanced service. As well, in the US, the roll-out of the service is being done on a county-by-county basis, as opposed to Canada’s national roll-out.

Should I pre-program 9-1-1 into my cell phone?

No. Do not pre-program 9-1-1 into speed-dial. Unintentional emergency calls from mobile phones can occur if you accidentally press a speed-dial key that has been pre-programmed to call 9-1-1. In some instances, you may not even be aware that the emergency key has been pressed. Check your phone’s manual or contact your retail dealer to ensure any pre-programmed emergency numbers have been disabled. In parts of the country, it is illegal to pre-program 9-1-1 into speed-dial.

What should people keep in mind when calling 9-1-1 from their cell phones?

Remain calm and speak clearly. Identify which emergency services you require – police, fire or ambulance – and be prepared to provide the following information: What is your 10-digit mobile phone number? What is the location? What is the emergency? Please remain on the line to provide additional information if requested by the call-taker. Do not hang up until the operator advises you to do so. After hanging up, leave your mobile phone turned on in case the operator must call you back.

Can I send a text message to 9-1-1?

No. Currently, 9-1-1 call centres in Canada are not equipped to receive/send text messages. It will likely be several more years before the public safety technology can support contact through means other than landlines, cell phones or internet phones.