General Support FAQ for the MV Real-Time GPS Service

This general Frequently Asked Questions (FAQ) document provides questions and answers for some of the most frequently asked questions with respect to the real-time service.

Most of this information is covered on the Metro Vancouver (MV) Real-Time Service website or in the Customer Care Document located on the web link:

General Service Questions

1. How Do I Sign Up For The Service?
2. Is There An Initial Setup Fee?
3. What Are The Subscription Rates For the DGPS or RTK Service?
4. Are There Any Other Costs Associated With The Use Of The Service?
5. Does The Service Supply The 1X Handset / Modem?
6. What is a 1X Handset / Modem?
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11. What advantage is there to using the Service, as opposed to setting up my own RTK base station?
12. What kind of increase in productivity should I expect to see?
13. If I Sign Up For The Real-Time GPS Service Can I Convert My Old Base Station Into Another Rover?
14. Can I Check E-Mail and Send/Receive Files in the Field?

1. How Do I Sign Up For The Service?

Signing up for the Service and getting working is as simple. Please follow the directions as they are explained below:

- **Complete a Service Application Form**
  - Go online:
  - Submit the completed Form to Global Minds Inc. (GMI) as per the Application Form. Please read *payment* instructions to service carefully.

- **Acquire a Service-Validated Bell Handset**
  - Bell Mobility - Business Development – Enterprise Sales
  - Mr. Brad Barts
  - 604-340-3663 (bus) or 778-229-2639 (cell)
  - E-mail: brad.barts@bell.ca
2. Is There An Initial Setup Fee?

No. It is included in the subscription fee (monthly / annual).

3. What Are The Subscription Rates for the DGPS or RTK Service?

The MV (and the partners via the GPS Steering Committee) have set the following rates for non-municipal partners:

- Annual Subscription Fee = $2400.00 / year
- Monthly Subscription $250.00 / month

The above subscriptions are inclusive of costs and services; namely:

- Sign-up/application
- Service orientation by Service Provider
- Business Hours Held Desk Support
- System Notification Messages
- Online FAQ’s and support documents
- Limited technical support

The Service subscription rates do not includes handsets/modems and airtime costs associated with the PCS provider.

4. Are There Any Other Costs Associated With The Use Of The Service?

No – there are no other Service costs. However, additional fees/charges may be incurred if you require the services of the Service Provider (Global Minds Inc.) for any out-of-the-ordinary support (e.g. GPS system validations).

A subscriber will have to purchase a 1X modem and pay their airtime charges to the carrier. The price of the modem varies depending on the plan the subscriber signs up for. The “airtime” charge - actually a data download charge - will be dependant on the plan you select i.e. from $30.00 to $100.00 per month plus network and various other system charges.

MV also offers Open Internet RTK access at trial basis. Users can access this service with Ntrip application via the following configuration: IP: 66.38.130.153, Port 9010
To download Ntrip application: http://ilmbwww.gov.bc.ca/bmgs/gsr/downloads

5. Does the Service Supply the 1X Handset / Modem?

No. The Service, or the Service Provider, does not sell the handsets/modems used to access the Service. The subscriber gets this item directly from the specific Bell contact noted earlier as they are best setup to deal with issues relating to the use of the modem.

We do require a subscriber to submit their newly acquired modems to us for initial activation. This is covered in the cost of account initialization.

6. What is a 1X Handset / Modem?

A 1X modem is an Internet enabled device that allows a remote user, to connect to the Internet using wireless technology that is incorporated into the cellular phone system.

To connect to us through the Internet the modem accepts simple commands much like a dialup modem does. These commands contain computer addresses (IP) and port numbers to connecting components on the network. We provide one IP address and port numbers for the centralized computer which then will allow you to access any GPS base station feed via the Ntrip software.

7. How Do I Buy a Modem?

Please call the appropriate Bell contact (below) that is familiar with the application and can activate the handset properly in order to get you working as fast as possible.

   Bell Mobility - Business Development – Enterprise Sales
   Mr. Brad Barts
   604-340-3663 (bus) or 778-229-2639 (cell)
   E-mail: brad.barts@bell.ca

8. Does the Modem Work Wherever There is Cellular Coverage?

Yes, it should work everywhere within the MV.

However, if trying to connect to the service in a remote area that does not have digital coverage, it may not connect.

The 1X technology is the latest technology for data transmission through a digital cellular network. The cell towers, to be able to transmit over the 1X network, need to be upgraded. In the MV, this should be everywhere, but outside of the MV this cannot be guaranteed.
In British Columbia, Bell and Telus have roaming agreements that allow 1X users from either carrier to connect to the Internet using each others towers, depending on whose tower is strongest/closest.

9. How Do I Determine If There is 1X Coverage Where I am?

For the most part, if you are not on site, you have to depend on the coverage maps published by Bell.

If you are on site and you are having trouble getting a correction stream the easiest way to determine whether you have 1X coverage is to check the wireless signal indicator, usually located at the top of the screen of the device.

To see a map of Bell’s coverage in British Columbia and the MV go to http://www.comparecellular.com/coverage_maps_bell.asp

10. Does Roaming From the Bell Network to the Telus Network Cause Any Problems?

It should not. This was thoroughly tested in the alpha testing phase of the service build-out – this was specifically tested in one area of the MV where there is a service cell tower switchover (e.g. Southern Langley Township).

To provide some technical information regarding the switching of networks … When the modem is initialized the modem will ‘seek’ a 1X supported tower to connect to, much the same as your cell phone does. After the tower connection is established a request is made to the carriers...
Internet infrastructure for an IP address to identify the modem on the Bell private IP network. This address will be different every time you establish a connection; however, the one thing that remains constant is the address will come out of the carrier’s pool of owned addresses.

Normally, when surveying, this is not an issue as most work is performed in a localized area that is covered by a single tower. If, during your work you roam to a second tower chances are that it is a tower of the same carrier. In the event this is not the case all that is required is to reinitialize the modem and reconnect. This process generally takes only 1-2 minutes.

If you are performing a wide ranging survey where you need to drive between points it is recommended that you stop the modem and reconnect when you need corrections. This will avoid this issue.

11. What advantage is there to using the Service, as opposed to setting up my own RTK base station?

The MV Real-Time Service is quick and easy, more importantly there is no need for a GPS base station or a person dedicated to watching it. That means no tedious setup and breakdown of GPS hardware and radio/communications hardware. Furthermore, there is no possibility of vandalism or theft to your base station.

12. What kind of increase in productivity should I expect to see?

Because the MV Real-Time Service eliminates the setup and breakdown of a personal/local GPS Base Station, the subscriber should immediately increase production by approximately 1 - 2 hours per job per day. On average it takes a crew approximately 1 hour to drive to the setup location, setup, and at the end of the day drive back to the base station and breakdown. Using the MV Real-Time Service these tasks are completely eliminated.

13. If I Sign Up For The Real-Time GPS Service Can I Convert My Old Base Station Into Another Rover?

In most cases, a GPS base station can be converted into another rover unit allowing the addition of another crew or additional GPS equipment for an existing crew. Please check with vendor.

14. Can I Check my E-Mail and Send/Receive Files in the Field?

Yes. Email accounts and FTP programs can be setup on the data collector to make it possible to check email and transfer files to and from the field. Some of our subscribers transfer their daily files to and from the field even before they get back to the office at the end of the day.