MVL-GPS MANUAL

Introduction to the market.

An Opportunity:

- Every 25.3 seconds a motor vehicle is stolen in the United States.
- The odds of a vehicle being stolen are 1 in 196.
- More than **1.2 Million Vehicles** are stolen in the United States every year with an estimated value of **$8.4 Billion Dollars.**
- 65% of stolen vehicles were recovered in 2002. **$2.9 Billion Dollars** worth of cars are unaccounted for.

MVL-GPS:

- An anti-theft prevention unit for motor vehicles.
- It monitors the vehicle through GPS and CDMA through SMS service provided by the local wireless company to clients.
- Because it uses GPS it can be tracked almost anywhere in the world.

The Market:

Value:

In One Year:

1) LoJack:
2) OnStar:
3) 17-19 Million cars are sold.

Who Would Buy it?

- Consumers
- Businesses
  1) For Rental Vehicles
  2) For Construction Vehicles
  3) For Fleet Vehicles
- Government

Why is this a good investment for Verizon?

- Market is still young. Competing GPS products are few and mostly unknown to the public. The most popular GPS solution is OnStar. OnStar is limited to only a select few vehicles and available only on their high end models. It is an extremely costly for end users in terms of adding it onto a vehicle and the monthly fees. In the antitheft market, LoJack is the leader. They don't offer a complete solution like the MVL-GPS. Their business model is to just sell the units. They offer no other features besides enhanced security.
- MVL-GPS is a cost effective solution. It can be sold for less yet it offers more features. It has features similar to OnStar but is as available and
- The business model is similar to cellular phones. The profit is from the monthly fees and not the actual sale of units. Different plans would allow Verizon to reach both ends of the market while the initial cost of the unit is not prohibitively expensive for the consumer.
- Low maintenance. The device is designed to be hidden and requires no interference from the end user. It is less likely to suffer damage that would cost the company time and money.

A product ready for immediate sale. UTOFOS has already invested the time and money necessary to research and mass produce the MVL-GPS. The unit already uses the same CDMA frequency as Verizon so it's ready for use in the network.

UTOFOS is experienced with bringing their products to new markets. We can help Verizon make the product ready for sale to the American public.

Chart.
MVL-GPS works.

GPS?

- The MVL-GPS provides vehicle tracking no other product in the market can match. The hardware supports all three GPS solutions, A-GPS,
- UTOFOS offers a wide range of software solutions. Everything from locating your vehicle with your cellphone to software that helps you avoid traffic hotspots. There are also fleet vehicle tracking solutions where it can log the distance travelled, speed and where it travelled.
- Over 95% vehicle recovery rate. Most vehicles are recovered within 30 minutes of a reported theft.

AGPS / DGPS / GPSOne Chart

for using GPS device that secures the vehicle. Annual spending on monthly fee will actually even out to the original insurance cost before deduction or be even cheaper.

Deduction rates

Different GPS solutions that can be provided by UTOFOS

GPS Applications in Korea Chart

- MVL-GPS: vehicle theft prevention, tracking, and rescue system through GPS network with the support of CDMA network.
- Locating friends through AGPS system. Service will be limited to Brew phones that has color display.
- Miniature GPS device that can be worn around neck or attached around wrists to help locate pets, seniors or children.
- Package tracking, delivery, and cab service.
- Avoiding tracffic congestion, information can be sent to a PDA or a Laptop.

What Does MVL-GPS Offer?

Miss Buffer

- It's a storage system that saves GPS locational data when the CDMA network is not functioning for any reason.
- It can save up to 300 entries and it will delete the entries based on FIFO.
- Transmission interval can be shortened or lengthened based on need.

Intenna

- An internal antenna (Intenna) - Other GPS solutions have an antenna that is exposed. So even though their units may be hidden like our's, thieves don't actually have to directly remove the unit, they just have to cut the antenna.

Size

made smaller than ever. It is easy to transport, to store, and hide inside a vehicle. Our chip is the smallest GPS chip ever made. (2) Even though the chip is more advanced the cost is actually lower than other competing products. More UTOFOS's GPS chips can be manufactured for the same amount of material it would take for a larger chip.

Security Features

- The MVL-GPS can detect the engine starting up. MVL-GPS owners can be alerted through their cellphones. The alert is sent through SMS, compatiable cellphones will ring with a unique noise and vibration.

Users can set the alert to whether they want it to notify them once or everytime. They can turn it on and off at will. This function can be remotely controlled through registered cellphones.

- Optional hardware and software adjustments are available for the MVL-GPS to transmit a warning signal if the unit has been disarmed or tampered with. This may increase cost of the product.
- The MVL-GPS is already adjusted for Verizon's CDMA frequency. Plug and play.

Installation Angle is 0-45 degree from the ground.

Easy Installation

- Installation is similar to other GPS anti-theft devices and LoJack. No special training is required.

Unit Power Line Chart

Red - Positive power source: always connected to the car battery.
Orange - Ignition wire: detects when the engine starts.
Black - ground.

Bidding price - 190 (bottom line - 170.) 210 w/ battery (190 bottom line)

Technical Support from UTOFOS

- UTOFOS will be providing software engineer that will assist in final product adjustment and caliberation and setting the server up.

Product Specifications

- Product's detailed functions. GPS-SMS / CO System through CDMA network.

battery

Can function as long as a month under GPSOne mode. If it uses CDMA only mode, the battery can last up to 3 months.
MVL- battery - $20 USD (OPTIONAL)

Hardware Specifications

- Detailed description of what the unit is made up of.

SMS Commands

- Detailed explanation of how SMS commands work.

Cost Break Down

Timeline

Product Specification	
GPS - SMS	
	Main Functions
GPS Module	• Transmits GPS data through the antenna, and has capability to send out current position at a request. (Location, speed, direction of
CDMA (SMS)	• Transmits GPS Interface and positional data with three sets of numbers. (SMS) • In case the request has been signaled, the positional data is transmitted. (Including the user's registration number and time stamp. • When the vehicle enters no service area, the MVL GPS unit will save up to 300 positional data at Miss Buffer, and will be remitted when the vehicle reenters service area. • In case the GPS data cannot be signaled out of the unit at a long interval, an alert message will be sent via SMS. • When the main power has been turned off, the unit will be fully functioning through the backup battery. Alert SMS will be transmitted when this happens. (Usage of the battery is optional) • At the client's request, battery saving mode can be entered by remote control through the cell phone, disabling GPS and only enabling CDMA network. (This option is only available for GPSOne)
Regulation System (Verizon)	
SMS Center Interface	• Server will have a specially selected transmission number. • Any requests that meets usual category will be processed with auto SMS replying system. (i.e. requesting positional data, etc)
Regulating Positional Data	• Real time tracking and saving of the every individual vehicle's positional data. (Viewable by operator through mapping - Geographic Information • Regular feedback to the registered user's cell phon on the positional data. (SMS) • Replying to the registered user's request for positional data via phone at request or thorugh SMS message.
Registered Clients' Web Service	• User's SMS feedback and such can be configured through provided website service. • Instaneous response system that functioning automatically to respond to the user's request for positional data. • Can access traffic information. (Optional)

SMS Commands	
Transmission Interval	
	Command
interval	#01 xx (Minutes) • By default, the positional data will be transmitted every ten minutes through one of the transmission number. (When 00 command has been inputted, the transmission will stop.)
Changing transmission number	#02 xxxxxx (Transmission Number 1) #03 xxxxxx (Transmission Number 2) #04 xxxxxx (Transmission Number 3) • First two will be standard, and the third number will be for different option. Changes will be only proceeded when done through the third number or when operator confirms that the changes have been requested by the registered user.

Positional Data	#06 At a emergency request of current vehicle's location, transmission of the positional data will be made instantly through the transmission number 2.
Saving the MVL GPS battery	#08 Power Off. #09 Power On.
Daignostic	#05 Current positional data, GPS level, power status, CDMA status (RSSI and such) will be transmitted instantly. Sent through transmission number 3.
numbers - Short Code	**Description** Transmission Number 1 (i.e. - 737678, Normal Tracking): The positional data will be transmitted on regular basis. (Every 10 minutes.) the registered number. transmitted.
Short Report Message Format	**51 Byte** Date(ddmmyy),Time(hhmmss),Lat(xxyyyyyL) - xx:grades;yyyy:minutes;L:North or South, Lon(aabbbbbE)- aa:grades;bbbbb:minutes;E:East or West), Alt(wwwww)- meters, Speed(sss) -km/h, # of Sat(mm) – unit, ShortCode(nnnnnn)

Appendix FCC RF Exposure Information

WARNING!

The antenna used for this transmitter must not exceed 0dBi and must be installed to provide a minimum separation distance of 20 cm from all persons.