

BSMART CONNECTED CAR



WHAT IS BSMART CONNECTED CAR SERVICES?

BSMART Connected Car Services, commercially known as inV (short for inVmobility), is Malaysia's first integrated wireless in-vehicle mobility service using GSM technology for vehicle-based electronic systems.

Developed by BSMART Technology Sdn Bhd in collaboration with University Technology Malaysia (UTM), inV hit the market late September 2006.

inV offers a series of innovative in-vehicle mobility services and applications that utilize the wireless communication system based on the GSM technology. This real time in-vehicle mobility service can be categorized into five areas: Communication and Connectivity, Safety, Security, Navigation and Location Based Services, and Community Services.

WHY BSMART CONNECTED CAR SERVICES?

Currently, when you drive home from work, you would wonder which road to take. You could be asking yourself, "Will that road be congested?" Sometimes this could be stressful because you may have an appointment you can't afford to miss. In short, you would want one day where you could obtain real time traffic information right inside your very own vehicle. Radio updates are not real time.

Apart from traffic, there are many people who need clear road directions to places they seldom visit. So instead of calling tens of friends for road directions, surely you'd want to have a system in your car that allows you efficient navigation services. That way, you'd never get lost.

Roads aside. There is a serious lack of real time alerts concerning road safety issues and integrated vehicle security services. There should be alerts whenever you drive above the speed limit in order to avoid unwanted accidents. And what if your vehicle gets stolen? Surely you would want your car to be tracked and returned to you.

Having put the above into consideration, BSMART is unveiling a brand new service that transforms your car into a communication centre - BSMART Connected Car Services - inV.

SYNOPSIS OF PRODUCT

inV is a Proactive Integrated Wireless In Vehicle Mobility Service that designed on a high performance and versatile proprietary BSMART Telematic System. More precisely, inV aims to facilitate:

Communication & Connectivity

- Incorporating the most powerful voice service technology that allows you to enjoy better voice communication clarity while reducing direct GSM radiation.
- This superior reception, amazingly, extends your mobile phone's talk time and prolongs its battery lifespan with fewer battery recharges. inV also ensures call cost savings through unlimited free calls within the BSMART community.
- Built in Least Cost Routing to ensure cost saving when owner dial an

international number from home country or even when he/her is driving aboard

Safety & Security

- Road safety is a huge issue in most of countries. At BSMART, we care for you and your loved ones. In our promise in supporting road safety campaigns, InV comes with vehicle maintenance reminder that diagnoses the state of your vehicle, speed violation alerts to reminding you when you exceed the speed limit and distress assistance and emergency response assistance services. We provide free auto-assist!
- Your vehicle is protected by the pro-active BSMART Anti-Car Theft Service where it provides early warning alert on unauthorized vehicle ignition or movements and recovery services to locate and immobilize your vehicle. Website access through Google Earth provides real time satellite vehicle positioning and past journey that you have travelled.
- With InV, you can be assured that you and your vehicle are in safe hands. Not only that, you can be assured that you'd pay less for car insurance.

Navigation & Location Based Services

- InVmobility also provides traffic video of selected location within Kuala Lumpur in real time through your 3G mobile phone or traffic images via your GPRS mobile phone.
- Suppose you are planning a journey downtown, you can acquire KL traffic in real time, voice road guidance or even real time GPS navigation while you travel. This way, you will never be late for your appointments!
- You can also make a call to our call centre for road guide as well as real time traffic.

BSMART community

- Get an automatic BSMART community membership when you sign-up for inV. This exclusive membership grants you discounts and special privileges for your insurance needs.
- Better still, make free calls to anyone within the BSMART community.
- Also, enjoy entertainment promotions at cinemas, monthly community gathering in concerts as well as auto accessories discount at participating BSMART community outlets.



Integrated Wireless In Vehicle Mobility Service



Other optional Value Added Services include (but not limited to):

- i) SMS **Alert** when vehicle alarm triggers
- ii) SMS **Alert** when vehicle battery is tampered
- iii) SMS **Alert** when vehicle is towed away
- iv) SMS **Inquiry** of Where Is My Vehicle (**WIMV**)
- v) SMS **Inquiry** of Show Me My Vehicle (**SMMV**)
- vi) SMS **Notification** when vehicle battery is low
- vii) SMS **Notification** when vehicle exceeds speed (>110km/h)
- viii) SMS **Reminder** when vehicle maintenance is due

ADVANTAGES/UNIQUENESS

BSMART Connected Car Services is powered by inV Mobility Unit, 4th generation of BSMART Access Terminal (b'AT). This device is designed with advanced embedded technology to enable Front End Intelligent (FEI). Hence, InV is a convergence of computing, positioning, communications and connectivity technologies designed for the automation, collection and dissemination of information, particularly refers to vehicle-based electronic systems, vehicle tracking and positioning, on-line vehicle navigation and information systems and emergency assistance.

The BSMART Access Terminal (b'AT) is a world's first, introducing a device to the market place that has concurrent GPS and PSM positioning capabilities, two integrated processors and an internal power source.

The Terminal is powered by Front End Intelligent (FEI) Technology, a comprehensive embedded technology that is equipped with necessary artificial intelligence to mimic human intelligence in decision-making for quicker response, better accuracy and less dependence on a backend server

BSMART Connected Car is the smallest but most powerful in-vehicle terminal with transformation and personalization capability. According to Deloitte Malaysia "Their terminal is the only one in the world that has concurrent GPS and GSM positioning capabilities, with two integrated processors and an internal power source. This allows it to function remotely, without relying on a backend server"

Hence, inV offers:

- **Least Cost Routing** – An automatic call routing to alternative Service Provider to ensure cost saving for every calls made.
- **Real Time Traffic Inquiry Service** – Auto connect to Transport Management Centre by simply pressing a button to activate.
- **Unlimited Free Voice Calls** – A special communication package allows unlimited free voice calls within the community to get instant reduction in mobile phone charges.
- **Extend mobile phone battery life span and talk time** – When you are using mobile phone while driving, the mobile phone battery will drain quickly as it needs to increase GSM receiver RF Amplifier Gain to stabilize the connectivity with the base station. Since user does not use his mobile phone for communicating, inV extends mobile phone battery life span by reducing number of recharge cycles.
- **Reduction of direct GSM radiation to human body and increase GSM Reception** – Due to the fact of the GSM phone design trend, most GSM antenna is embedded and hence, the reception sensitivity will reduce when part of the reception is blocked by the human body. Therefore, connected car will eliminate the highlighted concern.
- **Display Historical Journey via Google Earth** – Owner can access journey report via Google Earth.
- **Display Vehicle position over Mobile Phone** – Owner can check the latest vehicle position over mobile phone via "**SHOW ME MY VEHICLE**" SMS Inquiry. Owner will receive a "SMS push" printed with vehicle location in text and vehicle's position will be overlaid over a satellite map.

- **Maintenance Reminder Alert** – In answering Government Road Safety Campaign, b'TS will automatically send SMS reminders to Owner when vehicle maintenance is due.
- **Speed Violation Alert** – In answering Government Road Safety Campaign, b'TS will automatically send SMS alerts to Owner when he/she exceeding the speed limit of 110km/h.
- **Fuel Consumption Report** – Owner can make use of BSMART Management Console to monitor his/her fuel usage.

Technologies that are developed to enhance today's lifestyle in vehicle mobility services:

- **Web-enabled Management Console** – The total web-enabled software make inV a truly regional service.
- **Digital Driver Recognition** – A rugged data carrier embedded with 64 bits electronic registration number for automatic identification to further enhance the car security and to detect unauthorized vehicle ignition.
- **Dynamic Invisible Geo-Fencing** – A capability that automatically switches to 'armed' when the vehicle is parked and locked to activate immediate protection. Any unauthorized movement of the car out of this invisible Geo-Fencing will send an alert to us.
- **Dynamic Embedded 'Cross-boundary Geo-Fencing** – A capability that enables alerts to be activated when pre-defined boundaries - including country boundaries - are breached.
- **Remote Immobilization** – A capability to thwart any unlawful getaway of the stolen vehicle. Most importantly, b'AT ensures that the vehicle will only be immobilized when ignition is switched off.
- **Real-Time Tracking** – b'AT is integrated to a 24-hour real-time tracking mechanism with web-based digital mapping of vehicle mobility

THE BSMART CONNECTED CAR SERVICES KIT

- Featured Deal
 - 1 unit BSMART Access Terminal¹ (b'AT)
 - 1 unit GPS antenna
 - 1 unit GSM antenna
 - 1 set peripheral and interface kit
 - 36 months BSMART Telematics Services (b'TS) subscription
 - Installation, testing and commissioning
 - 24 months extended warranty, support, maintenance and upgrading of both software and hardware whenever available.

HOW TO PURCHASE BSMART CONNECTED CAR SERVICES KIT?

- Purchase of BSMART Connected Car Services inV can be made right here through these simple steps:
 - 1. Register online
 - 2. Installation
 - 3. Activation
 - 4. Notification and your vehicle is BSMART Connected Car Services ready!
- Or, you can visit any of our 100 fitment centres throughout Malaysia to install this amazing service.

HOW MUCH DOES IT COST?

- **ZERO ENTRY!** No down payment is needed!
- BSMART Connected Car Services, inV is yours to enjoy when you sign up for the BSMART Monthly Plan* at RM98++ monthly for a minimum of 36 months for this limited offer.
- Get a kit today and drive away with **inV Mobility Services!** Enter a brand new world today!
- *Terms and conditions apply

¹ Unit remained property of BSMART till full 36 months fees has paid.

FREQUENTLY ASKED QUESTIONS

How to install?

Visit BSMART fitment Center where our qualified Installer will competently fit the BSMART Access Terminal (b'AT) into the car which will normally take 2-4 hours. Once the installation is done, the inV mobility services will immediately be activated while security features will be armed and monitored 24X7 by BSMART Customer Support Center even when the ignition is switched off and/or stationary.

What type of SMS alerts does BSMART Connected Service provides?

inV will provide you necessary SMS Alerts of early warning in relation to the unlawful get away of the car such as:

- i) Car Alarm Triggered
- ii) Panic button pressed
- iii) Unauthorized (without valid Driver ID) Vehicle Ignition,
- iv) Hotwiring,
- v) Tow-Away,
- vi) Cross Country Geo-Fencing Violation (vehicle moving toward neighbouring countries),
- vii) Vehicle Battery Tempering,
- viii) Anti-Car Theft device, b'AT Tempering,
- ix) Or any tempering of inV wiring

Besides, in answering government road safety campaign, BSMART takes the initiative to enhance inV with SMS Maintenance Reminder when the vehicle maintenance is due.

What actually happens when my car is stolen?

In the event of a suspected car robbery, the b'AT will automatically alert the BSMART Customer Support Center of the incident. Within 5 minutes, BSMART Customer Support Center officer will attempt to contact you for verification. If we failed to reach you or receive the confirmation about the incident, the experienced recovery team will be despatched to track the stolen car while we are contacting the Police to report the incident. In order to ensure the efficiency (average of 90 minutes after BSMART Customer Support Center lodged the incident) of the recovery process, all our **16** ground recovery teams will be equipped with high speed wireless Internet access via CELCOM 3G-enabled Portable Computer. The recovery team will have access to the most **Advanced Satellite Images** corresponding the stolen car's **historical path** to ensure smooth recovery even if the car had been driven into forest.

Since b'AT is empowered with concurrent Global Positioning System (GPS) and Global System of Mobile (GSM), the car will be monitored seamlessly not only throughout Malaysia with **accuracy of 3.82m at 95% confident**, but also when the car

is driven across neighbouring countries like Singapore and Thailand, and other countries for the matter. As such, we aim to ensure you with a **PEACE OF MIND, SUPERIOR SECURITY** and **ENHANCED SAFETY**.

How b'AT is being interfaced with vehicle?

Our qualified installer will carefully fit BSMART Anti-Car Theft Device into the car in accordance to the BSMART installation guide:

- i) the device did not have direct interface with the Vehicle Engine Management Unit
- ii) the device:
 - a. Assemble the panic button at a hidden location within the car but reachable by driver; connect it parallel with the car alarm.
 - b. Connect it with the voltage supply from vehicle's electronic voltage supply to simulate vehicle ignition status.
 - c. Assemble the driver recognition reader at a hidden location within the car but reachable by driver.
 - d. Connect a bypass to triggered/switched-on hazard lights (normally no connection, i.e., the hazard lights will not trigger unless it is activated)
 - e. Cut the supply and connectivity of the fuel pump/ignition (normally no bypass, i.e., the fuel pump circuitry will only break after it is activated)

When b'AT is installed **according to BSMART's instructions, it cannot rapidly (not less than 5 min) be rendered ineffective or destroyed** by, e.g. the use of low cost easily concealed tools, equipment or fabrications readily available to the public at large. It shall be difficult and time consuming (not less than 5 min) to replace a major component or assembly in order to bypass the b'AT. Hence, b'AT will normally be concealed within the car so much so that it is not easily reachable.

Prior to the installation, our BSMART Customer Support Center already activates inV service and upon the completion of the installation, our qualified installer will then validate the installation from inV backend via SMS. The driver can immediately test the inV via "**Where Is My Vehicle (WIMV)**" SMS Services or via "**Show Me My Vehicle (SMMV)**" SMS Services.

Is there any Product Liability if inV damaged my car?

Yes, **Quality Assurance** is always BSMART commitment to BSMART subscribers. We provide up to **RM1,000,000.00** in financial compensation for any damages suffered resulting from the use of inV. This way, car owners can have peace of mind when subscribing to inV services.

How does inV's Early Warning process work?

In the event of a triggered car alarm, b'AT will automatically alert the BSMART Customer Support Center of the incident. Within 5 minutes, an SMS alert will be sent to the car owner while our BSMART Customer Support Center officer will attempt to contact car owner for verification. If we failed to reach the car owner or received the confirmation on the incident, the experienced recovery team will be dispatched to track the stolen car. We, meanwhile, will be contacting the Police to report the incident.

Apart from triggered car alarms, other b'AT will also send early warning alerts in the event of pressed Panic button, Tow-Away, Cross Country Geo-Fencing Violation (vehicle moving toward neighbouring countries), Vehicle Battery Tempering, b'AT tempering and any tempering of inV wiring.

When b'AT detected unauthorized (without valid Driver ID) Vehicle Ignition or Hotwiring, it will automatically initiate immobilization while alerting BSMART Customer Support Center. Hence, the car owner can be rest assured that immobilization can not be fail even when the professional thief tries to disconnect GSM or/and GPS antenna or use "**Frequency Jammer**" to float the b'AT which is built with front-end intelligence.

How does inV's Remote Immobilization process work?

Upon confirmation of the above unlikely event by either our BSMART Customer Support Center officer failed to reach you or received your confirmation, we will initiate the immobilization procedure which is in compliance with United Nation Immobilization Regulation (E/ECE/324, Rev.1/Add.96/Amend.1, E/ECE/TRANS/505). In short, when fitted, b'AT has an influence on the ignition and/or the fuel supply system of the car, **it will avoid immobilization of the vehicle whilst the engine is in its running mode.** This facility shall not impair the vehicle's normal operation, even in the event of malfunction. Once the vehicle is immobilized, the buzzer will produce a loud high pitch to attract public attention and to deter the car thief.

How does inV Recovery process work?

During the unlikely event that the car is stolen, the experienced recovery team will be despatched to track the stolen car while we are contacting Police to report the incident. At the same time, we will provide the Police with the latest stolen vehicle's position to assist them in their operation strategy.

In order to ensure the efficiency (average of 90 minutes after BSMART Customer Support Center lodged the incident) of the recovery process, all our **16** ground recovery teams will be equipped with high speed wireless Internet access via CELCOM 3G-enabled Portable Computer. The recovery team will have access to the most **Advanced Satellite Images** corresponding the stolen car's **historical path** to ensure smooth recovery even if the car had been driven into the forest.

During the recovery process, our recovery teams who are following the stolen vehicle will provide the latest progress to the Police so that Police can reach the stolen car in the shortest possible time.

Meanwhile, please relax and BSMART Customer Support Center will keep car owner updated on the recovery status. We will advise car owner on the procedure to reclaim the car from a Police station.

What should car owners do in the event of a robbery or hijack?

In such unlikely event, Owner/Driver's safety comes FIRST, hence, we will recommend that the car owner does not fight with the intruder but to co-operate with the intruder instead. Follow the instructions given, let them drive the car away and let inV take the challenge.

Even if the robber hijacked the car together with car owner, we will still be on alert if owner managed to trigger the panic button, but we do not recommend the owner to do so for the safety reasons unless he/she has the perfect opportunity (i.e., before the robbery get into the car) to do so.

Once owner's safety is secured, owner is advised to inform the BSMART Customer Support Center as soon as possible so that we can initiate the Remote Immobilization and recovery process immediately while you report to the Police on the incident.

Thanks to the advanced cross country boundaries geo-fencing, b'AT will automatically alert our BSMART Customer Support Center in the event the hijacked car is transported to neighbouring countries like Singapore, Thailand or Indonesia. With this advanced feature, we can increase the chances of the stolen car or even the car owner who was hijacked together with the car to be recovered within Malaysia.

Unlike other system, inV has the capability to track the stolen car even if they had been exported to other countries. This feature is made possible by inV roaming capability powered by CELCOM GSM network in **103** Countries with **198** GSM Operators world wide with many more to come.

How does inV Distress Assistance process work?

In the event distress assistance is needed (such as car breaking down), subscriber just need to call BSMART Customer Support Center hotline (1-300-88-2272). Within 60 minutes, BSMART Customer Support Center officer will despatch experienced mechanic or tow truck to assist you. The tow service is free if it is within 50km from the 300 nationwide breakdown support centers. Any customized or special request services will be charged accordingly as per market price.

Besides that, if necessary, BSMART Customer Support Center can assist you to contact your insurance agent for necessary follow-up on the claim procedure.

How does inV Emergency Response process work?

In the event of any unlikely events (such as accidents), subscriber just need to call our BSMART Customer Support Center hotline. Within 60 minutes, BSMART Customer Support Center officer will dispatch the experienced tow truck, contact emergency response team such as police, ambulance, fire-fighters & etc depending on your need. BSMART Customer Support Center will also assist you in contacting your family members for necessary support. The tow service is free if it is within 50km from the 300 nationwide breakdown support centers.

Besides that, if necessary, BSMART Customer Support Center can assist you in contacting your insurance agent for necessary follow-up on the claim procedure.

How to use “WIMV” SMS Inquiry?

Most of the SMS Alert and Notification will be sent to subscriber automatically. But, if the subscriber wishes to check his/her car position, he can simply send a SMS (follow text below) to **019-2219727**:

WIMV<SPACE>ABC1234

Within 5 minutes, you will receive details on your car's position.



How to use "SMMV" SMS?

Most of the SMS Alert and Notification will be sent to subscriber automatically. But, if the subscriber wishes to check his/her car position, he can simply send a SMS (follow text below) to **019-2219727**:

SMMV<SPACE>ABC1234

Within 5 minutes, you will receive details on your car's position.



What is the maintenance and lifespan for b'AT?

The b'AT lifespan is estimated at more than 10 years, but it is advisable for subscriber to send it to the fitment center for calibration at least every 3 years to ensure fitness of b'AT.

How to transfer inV Services?

In the event subscriber wished to transfer their subscription to the new owner of the car, subscribers just need to drive to our fitment center and pay a transfer fee of RM 200. The transfer of registration will be done within 30mins.

In the event subscriber wished to transfer subscription from an old car to a new car, the subscriber just needs to drive to our fitment center and pay a transfer fee of RM 700. The transfer of anti-theft device b'AT and the registration will be done within 120mins subject to the qualified installer availability and the installation complexity of the new car.

How to renew inV Services?

No renewal of services is required by the vehicle owner as inV services are charged on the monthly fees that vehicle owner pays each month.

What is the limitation of inV Services?

b'AT uses GPS or GSM technology for positioning. Therefore, in the event both GPS and GSM signals are unavailable, b'AT will not be able to provide any positioning detail. But, once it moves out from this extreme location, we are able to continue tracking the car.

The Real Time Traffic information is currently only available in selective corridors within Klang Valley.

The Voice Guide Services is currently only available in most of the major towns in Peninsular Malaysia.