



Hidden Technology Satellite Tracking Solutions

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Introduction

Hidden Technology, as part of the 2006 Research & Development program, are developing tracking solutions utilising Inmarsat satellite communications as an alternative to GSM communications. There is also a future development to utilise the Thuraya satellite communications network.

The objective is to have satellite solutions controlled by the CP2 software application so that customers can monitor tracking objectives via GSM or satellite communications via a single software interface.

Hidden Technology is working with a number of specialist hardware developers to provide the hardware element of the solution and Hidden Technology have development responsibility for the communications protocols for CP2 and CP2 functionality.

The timescale for release of the Inmarsat and Thuraya products is not yet firm and will depend on customer requirements and new prospect opportunities.

HiSAT 101 Terminal

For the requirement of Satellite Tracking HTSI recommend that an Inmarsat D+ communications and GPS tracking solution with alarm monitoring and, optional, text messages is provided and supported by CP2 mapping and control software.

HiSAT 101 Terminal

The HiSAT 101 mobile satellite terminal gives tracking and remote monitoring capability to the maritime, transport, security, energy and utilities sectors.

The HiSAT 101 compact technology enables the position and status of mobile assets to be monitored from any location with an Internet connection.

The HiSAT 101 can be programmed to transmit location reports and status messages at user-defined intervals. It enables a constant watch to be kept on functions defined by the user, such as the position, direction, speed and security status of mobile assets, and on the performance and status of remote systems or premises.



Featuring a built-in GPS receiver, and a high degree of integral data processing intelligence, the HiSAT 101 provides exception-reporting capabilities that enable the transmission of data only when a particular condition has been met or exceeded. For example, this could be triggered

when a vehicle reaches a specific destination, or unexpectedly moves beyond a designated zone.

The HiSAT 101 terminal incorporates a number of powerful facilities:

- Automatic transmission of location reports
- Remotely programmable, with exception-reporting functionality
- Comprehensive interfacing for multi-channel system monitoring
- Flexible powering options for long-term unattended operation
- Miniature format, with low-profile antenna for unobtrusive installation



With an optional PDA two-way communications device, the HiSAT 101 can also be used for text messaging.

Incorporating a 12-channel GPS receiver for high-accuracy location reporting, the HiSAT 101 consumes minimal power for long-term unattended operation, and can be powered from its battery pack, a local supply, or a solar panel. Effectively, the terminal is "asleep" between transmissions, hence its low power consumption. By pressing a panic button, the message transmission frequency can be dramatically increased - for example, to every few minutes, to provide Search and Rescue teams with rapidly updating position reports.

The HiSAT 101's ability to interface with a variety of external sensors and systems, combined with its built-in data processing intelligence, allows status information about parameters such as fuel levels and warnings of illegal door openings to be gathered and stored, and transmitted direct to the customer. The terminal's ultra-compact dimensions assist with its unobtrusive installation, and it is supplied complete with a low-profile antenna that maintains satellite contact down to very low elevation angles. This ensures that full advantage can be taken of the satellite footprints, out to the extremes of their coverage, to ensure effective service availability throughout the world.

CP2 Control Platform Software

Linking via the internet the CP2 software provided full control of the tracking units in terms of configuration, alarm handling and display of multiple vehicles on the integrated map viewer.

The CP2 server links to the Message Handling System at a centralised Data Centre in the UK via a secure Internet connection. Additional CP2 Client terminals can be linked to the CP2 Server via the internet allowing multiple user monitoring of the tracked assets.



CP2 supports up to 2,000 assets and provides full location monitoring, alarm handling and text messaging functionality from a easy to use Windows PC platform.

Mapping

The CP2 software includes HTViewer, a dedicated map engine for vehicle and personnel tracking applications. HTSI can, via a number of map business partners provide maps of most countries in the world. The scale and level of detail for the chosen areas is variable but will allow location of the tracking vehicle to a degree allowing search and rescue operations and location management.

Computing Environment

The computers required to operate the CP2 Software require the following minimum specification:-

- Pentium 4
- Microsoft XP Professional
- 1.8GHZ Processor or higher
- 512 DDR SDRAM
- Additional Ram will enhance map refresh performance
- 40GB Hard Drive (5GB Free space)
- CD Rom Drive
- 32 Bit Graphics Card
- Internet connectivity – Fixed IP address

For Control Room applications a desktop solution is recommended and a Laptop for mobile field operations is normally suitable, if a fixed IP address is available.

Subject to end user security policies an Internet connection is required for remote software support.

Pricing

At this stage the pricing is indicative and Hidden Technology will provide a formal quotation once the exact requirements are agreed. The 15% Westminster International discount has been applied.

Product Description	Quantity	Price Each £ (Excl VAT)
HiSAT 101 <i>- Inmarsat D+ GPS tracking Unit including: Antenna, wiring, Panic Alarm - Pricing is based on connecting to an Inmarsat D+ airtime agreement</i>	1 -50	£1,399

2 Way Messaging Terminal - PDA terminal with HiSAT Messaging Application allowing send and receipt of "canned" text messages	1-50	£499
CP2 Control Platform - CP2 Server	1	£6,290
CP2 Client - Additional CP2 Client Applications	1	£3,400

Pricing excludes Inmarsat airtime charges and connection to Inmarsat communication network.

Installation is not included for the HiSAT hardware. Customer installation requirements are to be discussed.

User Training is included at HTSI UK or Holland facilities. In-country training and software installation can be provided at a fixed cost and the requirements are to be discussed.

All products include 12 month warranty on return to manufacture basis, training at HTSI UK, HTSI Holland facilities or in-country, and telephone Helpdesk support.