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THE ORCHID DIFFERENCE

There are many vehicle-tracking systems worldwide, however there's only one market leader. One of the main reasons for Orchid's success is that it works very differently to any other system available. The Orchid system uses a HUB architecture, which positions it well above competitors. This technology provides many distinct benefits, including speed, access, and security. While radio based tracking is still available, it suffers limited range and poorer accuracy, particularly in built up areas. Modern tracking systems use both GPS and GSM networks, but Orchid is the only system available with the proprietary HUB technology. The HUB is the Orchid computer installed within the GSM provider's network, which in Australia is Vodafone. Tracked vehicles identify their position, and transmit this data directly TO the GSM network (the HUB). Other systems use the GSM network merely as third party subscribers, with their data passing through the network. Orchid is actually part of the network, and this is the Orchid difference.

SPEED

Data is transmitted across the phone network using the Short Message Service (SMS) facility. While most SMS's are transmitted in seconds, it's common to find them delayed. When networks are congested, SMS traffic is 'queued', and sent when congestion is lower. Congestion results in SMS delays. An SMS sent on New Years Eve may not be received until the following year! This phenomenon is more common than many realise. For non-Orchid systems, users must share the limited SMS bandwidth with other consumers, subject to congestion delays when they occur. This unreliability is unacceptable for many who can't wait an hour to locate their fleet vehicles, or be notified of alarms well after activation.

Orchid is different. Orchid SMS traffic is designated 'priority traffic', and is not rescheduled into a delay queue. Orchid tracking takes precedence over 'standard' consumer SMS traffic, hence positions and alarms are conveyed instantly. Other systems only provide real-time tracking only when SMS bandwidth is available. Orchid is part of the GSM network, which enables it to prioritise such traffic, not use GSM networks as a third party subscriber.

An SMS is effectively two wireless messages – one from the sender to the GSM network, and the other from the GSM network to the receiver. Orchid tracking SMS only has one wireless leg, as the receiver leg is via a fast data link, not SMS. This further increases speed and reliability, as well as making the system far more secure.

RELIABILITY

The Orchid HUB is extremely reliable. It is located in a highly secure environment, temperature controlled with uninterruptible power supply, a hot twin server on standby, and importantly 24-hour on-site technicians. You can rest assured your data is always safe. Tracking systems without a HUB rely solely on customer systems for data backup and protection, and few companies can match the expertise and facilities offered by the team at Orchid, who offer world-class service 24hrs a day. With Orchid, maximum reliability comes standard.

ACCESS

The HUB architecture is well designed for easy access in a variety of means and at multiple access points. For example, tracking information can be provided simultaneously to three computers in the main company office, one in another depot and a mobile supervisor using a laptop. There is no requirement to set up or use an internal company network, as this is all seamlessly built into the HUB. Peer-to-peer systems receive the data at a single location, which must then be retransmitted to other computers using another network, at extra cost, yet with Orchid, simultaneous access by multiple users is standard.

Unlike other GSM based systems, the HUB enables Orchid to provide you access to your tracking data via an Intranet, the Internet, via email or even via a 1800 telephone number 24Hrs a day. There is no requirement for a GSM phone and modem to receive data, nor a requirement to have good GSM reception to access the data. You can access your Orchid data anywhere in the world, in any way you choose.

SECURITY

Non-Orchid tracking systems without a HUB are vulnerable in several areas. Vehicles tracked using Orchid send their position via SMS to the closest network base station. This data is NOT transmitted via wireless to the receiver, as it is provided directly using the Orchid electronic network. Other systems receive all their data wirelessly at a single point. In effect, Orchid only transmits wirelessly ONCE, and only at the 'vehicle' end. Other systems transmit TWICE, with all data sent from the vehicle to the network, and then sent and received at the office location via radio waves. Apart from reduced speed and congestion delays, this method is vulnerable to interception by third parties.

The only way to intercept Orchid SMS data is to capture it being sent from the vehicle to the closest base station, IE from near the moving vehicle. Other systems have all their fleet data being received wirelessly at the fixed office location, enabling interception of this data from anywhere within the 'office' GSM cell. The only way to intercept Orchid fleet information is to physically access the network, not merely receive and decode wireless radio traffic being regularly sent to a fixed location. This has proved to be a key factor in evaluation trials, and now many law enforcement bodies, Police and Defence departments are using the highly secure, Orchid tracking system in their daily operations. Even if you are not running a fleet of armoured cars carrying cash or similar items, why settle for a system that offers anything less than the best security available? Would you be happy with others tracking your fleet vehicles without your knowledge?

Security is built into the Orchid system in many areas, both physically (anti-tamper devices and alarms built into transmitters) and in the software, with multiple access levels and

password protection. Orchid SMS data is also encrypted using a DES algorithm. With Orchid, your data is secure.

CHARGES

Tracking systems that aren't integrated directly with GSM networks can't offer the same service as Orchid. Some tracking units have been known to 'over-poll', resulting in huge SMS phone bills. Orchid users are part of the network, so problems are quickly identified, and remedied using direct network support or account credits. Tracking systems that aren't part of the network (like Orchid) are often sold as hardware and software, yet the main cost of tracking is the data charges. By 'talking down' quoted usage costs, or underestimating usage patterns, the total cost of ownership can appear far lower than would actually be incurred after the system was purchased.

Orchid has special SMS rates, which are lower than standard. Some tracking systems actually charge for historical data requests, making some reporting actually quite expensive. With Orchid, the data is yours and reports are free.

Orchid is a total package, incorporating not only hardware and software, direct network access and real ongoing support. Orchid aims for long and valued customer relationships, rather than profit on the initial system sale.

FLEET SIZE

The largest Orchid tracked vehicle fleet is over 600 vehicles, and has been operating for years. Orchid tracks 100 vehicles as easily as it tracks a single one. Peer-to-peer systems have all the data being received via SMS at a single point, but Orchid provides an electronic downlink by HUB network, not wireless SMS. Larger fleets trying to report via SMS causes network congestion at the receiving end. With Orchid however, a fleet of 100 vehicles can report to 100 separate GSM base stations simultaneously, and this data is received immediately via the Orchid HUB network connection, not via SMS. With other tracking systems, the single office receiver can overload or delay when it receives 100 simultaneous SMS messages. While robust, SMS technology is low bandwidth, and wasn't designed for either fast or high volume data usage. Being part of the network, Orchid can partially use SMS for the individual vehicle communication, while providing a fast and direct data connection for the higher bandwidth fleet receiving end.

There are many reasons to choose Orchid, the above points highlight [The Orchid Difference](#).