

# Digital angel corporation

[Business](#), [Company](#)



Digital Angel Corporation is a high tech provider of personal tracking and recovery devices located in St. Paul, Minnesota. They are split up into four divisions: Digital Angel Systems, Digital Angel Animal Identification Systems, Digital Angel AlertCall Center, and Digital Angel GPS and Satellite Communications. Digital Angel Systems focuses on safety and locations systems, with customers including Amazon. com and Staples. Digital Angel Animal Identification Systems focus is on coded transponder chips for pet identification and has a very high success rate in recovery. Digital Angel AlertCall Center provides the healthcare industry with call-in-support for answers with health related questions. Finally, the most unique division of Digital Angel Corporation, Digital Angel GPS and Satellite Communications, which provides tracking of people and personal via GPS and radio.

Digital Angel also has some strong partners. By providing map data with Microsoft's Map Point Software (and with . net technology), and wireless technology via AT&T wireless, Digital Angel proves it has some influence in the tracking and recovery markets.

Financially, however, Digital Angel Corporation appears to be in a struggle to become profitable in the tracking and recovery markets. Digital Angel reported net incomes of -\$92. 359 million in the fiscal year ending December 2002. The previous three years also reported significant losses.

#### Product Description

Through the development of personal GPS tracking systems, integrated with wireless technology, Digital Angel is ready to introduce a new market focus: cargo tracking. By offering real-time location tracking, Digital Angel provides

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a real value to the trucking industry. By extending their current product lines, new markets can be identified.

Digital Angel will market the product under the name " Digital Angel GPS Tracking System" and consists of a hardware and software portion. The hardware will be available in three form factors: Cargo-Pager, Personal-Pager, and a vehicle mount. The cargo pager is designed to be mounted on a skid, or shipping container for tracking of highly valuable cargo. The personal-pager will be used for the monitoring of drivers and their locations. Vehicle mount units are designed for direct installation into a truck. These three form factors will give customers the best choices in how they want to implement a cargo tracking system.

Antenna: Remote mount

The software associated with these units will allow seamless integration into existing infrastructures. It provides the user a portal into the Digital Angel tracking system, which allows end users to retrieve data on truck position. This data can then be tailored into trends, maps, tracking data, and delivery time forecasting. Tracking information is also available from the web to allow manual tracking of individual units. This solution will provide end users with fleet management, real time tracking data, and the ability to custom tailor Digital Angel tracking systems to their needs.

Pricing will be \$299. 99 for the Personal-Pager and the Cargo-Pager. These units cost approximately \$160. 00 to manufacture. The Vehicle mount unit

will sell for \$250. 00 due to the inexpensive costs associated with production.

## Industry Analysis

### Size

The trucking industry will continue to dominate domestic freight transportation modes by increasing to 68. 2 percent of its share of all freight tonnage moved throughout the U. S. by 2008, according to American Trucking Association's recently released U. S. Freight Transportation Forecast. " This number represents a gain in market share of 0. 8 percentage points and keeps trucking squarely in the driver's seat as the dominant mode of transportation for delivering America's goods," said Bob Costello, ATA chief economist and vice president. In the trucking transportation industry there are a variety of different services provided by companies. These companies provide services that range from:

- \* Long haulers
- \* Regional haulers
- \* Distributors
- \* Company Owned (Harley-Davidson, goes between manufacturing facilities)
- \* Spot Trucking (One day, instant service from A-B, city coverage)

### Characteristics

The long haulers of the trucking industry are the ones that are seen on the major highways for the most part. They are the types that are taking goods from one part of the country to the other. For example, Swift Transportation is the nation's largest publicly-held truckload carrier, which operates 38 terminals in 31 states and Mexico. They provide dedicated fleet service to many of the largest retailers. They will often take loads from major West coast ports and disperse them inland to a variety of states, including the Midwest.

Regional haulers are the companies that will operate in an area covering Wisconsin, Minnesota, Illinois, and Iowa. Amazon Trucking is a California-based company that provides Los Angeles and Orange County with one of the highest ranked transportation services available in that area. This company and many others like them specialize in quick, on-time service in a large geographic area.

Distributors are haulers that specialize in transporting specific types of products that operate in a specific location. Niebaum-Coppola is a company that specializes in the distribution of wines in a variety of cities around the country.

Company-owned trucks are used to transport equipment and products back and forth between facilities. For example, Harley Davidson owns a fleet of trucks. A portion of these trucks are used to transport finished motors from one facility to another facility where the chassis are for final assembly. Other companies, such as Rockwell Automation, have a company truck that is used

to move equipment back and forth from Milwaukee to Eau Claire on a daily basis.

Spot trucking are the companies that do not have any set contracts or specific cargo that is carried on a regular basis. They are usually smaller transportation companies that operate in a small geographic area, such as a city. Time Transport is a Wisconsin-based company that handles a good majority of the local distribution for Miller Brewery. A good bulk of their business is also done by customers calling up and requesting a pick-up and delivery for same-day-service.

### Competition

Digital Angel is a company that is focused primarily within the healthcare field. Therefore their three largest competitors are the following:

\* HealthGate Data wants to be a gateway to better health. Through its network of co-branded CHOICE sites, the firm publishes electronic health care information from more than 30 content providers via the Internet to doctors, other health care workers, and patients in more than 600 hospitals throughout the US. HealthGate also revises third-party content in-house and features proprietary content written by an editorial staff of physicians, medical journalists, and other health care professionals. The company's HealthGate OnSite product enables customers to download HealthGate's content files and host them on their own servers. Chairman and CEO William Reece founded the company in 1994.

\* Medsite (formerly Medsite. com) boasts the answer to that question and more on its Web site for medical professionals. The company provides online marketing and educational services for physicians through its Interactive Grand Rounds program (online case management education) and Medsite Rewards service (offering online medical product information and free samples). In addition, Medsite offers physicians a medical journal tracking service (Journal Manager) that transmits e-mail updates from a selection of more than 4, 000 medical journals. The company also sells medical books through its MedBookStore. com e-commerce site. CEO Sundeep Bhan co-founded Medsite in 1995.

\* Patient Infosystems is a company that designs, develops, and operates data management programs that contact medical patients to determine their condition and compliance with treatment protocols. The firm gathers data via a semi-automated telephone system and then processes it, generating reports for health care providers, pharmaceutical companies, and others. Patient Infosystems has contracts with Bristol-Myers Squibb and other companies to provide data management for patients with asthma, diabetes, congestive heart failure, and other conditions. Chairman Derace Schaffer and John Pappajohn, a director, each own more than 20% of the company.

Note: Each of these bullet points came from data gathered at Hoover's - Digital Angel.

These companies are Digital Angel's main competitors in the healthcare industry. If Digital Angel wanted to enter into the market of asset tracking for the trucking transportation industry, they would have a completely different

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set of companies to compete against. The following are a few of the companies that are currently recognized in this industry:

\* " Cubic Corporation is a company that currently has a joint marketing venture in the " works" with S3, a San Diego based satellite security company, to offer military and civilian customers in the homeland defense market a tracking system that uses the government's satellite Global Positioning System (GPS) technology." (Space Daily) Cubic, along with S3 appear to be in negotiations with Homeland Security with the intent to be the government supplier with regards to this type of product.

\* Fleetilla is a company that focuses specifically on GPS system for truck and trailer tracking. They allow customers to better manage their fleet by helping them track mileage and provide information needed to simplify customer billing. " Transportation fleet managers communicate with field personnel (e. g. drivers) for status updates or new instructions through an Internet browser by accessing our Web services hosted on the Fleetilla gateway servers at the Fleetilla Network Operations Center. Fleetilla wireless tracking units are installed on vehicles. These units receive alerts, send automatic location and driver provided status updates via cellular wireless networks. The Fleetilla tracking units use the Global Positioning System (GPS) which pinpoints its exact location in addition to other parameters." (Fleetilla)

These two companies appear to be the main competition that Digital Angel will have to compete with if they choose to enter the market of asset tracking, in particular the area of the truck transportation industry.



## Situational Analysis

### Environmental Scan

#### Competitive

The GPS technology has only recently surged into the tracking industry as a highly regarded means of fleet management and asset tracking. With the rise of cellular technology, improvements in the GPS satellite network, and higher demands for security and asset management, many competitors have quickly risen to the needs of this industry.

The Digital Angel GPS Tracking System's direct competitors include:

- Land Air Sea Mobile Watch. net
- Global Tracking Corporation GTC-100A
- Fleetilla FL800

Land Air Sea Systems Incorporated (LAS) manufactures a GPS tracking system called Mobile Watch. net. This product combines GPS and digital cellular technology to implement a nationwide vehicle tracking system. Mobile Watch. net consists of a compact tracking unit and a stand-alone software application. The tracking unit is integrated into vehicles to be tracked, and the software application is used to track these vehicles. The tracking unit comes with a 64MB memory card to allow for extreme data logging. The Mobile Watch. net software implements a dynamic street mapping tool to easily display real-time tracking information to its users.

Mobile Watch. net offers the ability to obtain instant vehicle location without time delay. Its real-time positioning is updated at a rate of once per second. It also offers the ability to download tracking information to cell phones and other cellular devices. Its feature benefit is its stand-alone software application and its ability to store large amounts of data. Complete company information and technical product specifications can be found at [www.landairsea.com](http://www.landairsea.com).

Global Tracking Corporation manufactures a GPS tracking system called GTC-100A Vehicle Tracking System. This product combines GPS and cellular technology to implement its vehicle tracking system. It consists of a very small, self-contained tracking unit to be implemented in vehicles. This tracking unit is designed to be able to operate, if need be, on its own self-contained power pack. Tracking information is requested via the Internet. When a user requests for tracking information, the GTC-100A Vehicle Tracking System reports the information via cellular communications. Its feature benefit is its self-contained power pack. Complete company information and technical product specifications can be found at [www.satellitetrack.com](http://www.satellitetrack.com).

Fleetilla Incorporated manufactures a GPS tracking system called the FL800. This product combines GPS and cellular technology to implement its vehicle tracking system. It consists of a compact tracking unit to be implemented in vehicles. Tracking information is requested via the Internet through a very easy to use web interface. When tracking information is requested, the FL800 reports the information via cellular communications. The information

is displayed in real-time and can be viewed in a street map format or in detailed report logs. Automatic scheduled updates can be enabled to offer easier and more convenient tracking. The FL800's feature benefit is its automatic scheduled updates and no software implementation. Complete company information and technical product specifications can be found at [www.fleetilla.com](http://www.fleetilla.com).

The Digital Angel GPS Tracking System's substitute competitors include:

- Cellular phone companies

Although GPS technology may offer the most efficient means of communicating location information quickly and efficiently, the cellular phone industry still holds as a qualified substitute. Smaller fleet companies do not have the necessary economic backing to implement GPS fleet management systems and, therefore, rely on basic cellular phone communications to relay location information. Cellular phone service is inexpensive and company accounts can usually be implemented for even cheaper rates.

### Economic

Currently, with a struggling economy, many companies are trying to save money and are not looking to invest in technological "gold plating" of their systems. Many companies are looking to ride the current economy wave until it shows itself to be more stable and profitable. This current trend has hurt Digital Angel's current sales and revenue and has resulted in an extensively high net income loss in last year's closing.

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## Technological

With such fast growth in current technology trends, a specific technology for Digital Angel to solely invest in and implement their product with is extremely important. Digital Angel's Tracking System currently uses GPS satellite technology and CDMA cellular phone technology to implement in its product and service. The GPS satellite network is funded and operated by the U. S. Department of Defense. The GPS system was initially designed for the U. S. Military, but has recently entered the commercial market. (Dana) Since it is a U. S. Government affiliated program, its growth is anticipated to continue and become even more advanced.

The CDMA cellular phone technology has become a prime communication link for GPS receivers to relay information. With the demands increasing for GPS tracking systems to relay more than just location information, a higher bandwidth wireless technology is in need. Currently, CDMA technology can only transfer data at speeds of 30-70 kbps. With user requirements increasing to not only location information, but information such as average speed, maximum speed, engine temperature, engine performance, and so forth, higher data transfer rates are in demand. A new wireless technology called Ricochet has just been introduced to the wireless data transmission market. The Ricochet Micro Cellular Data Network (MCDN) is a wireless data-only network built by Ricochet Networks, Incorporated. Its high-speed network of 128 kbps was recently launched in July 2000 and will definitely "spark" interests within the GPS tracking industry. (Ricochet)

## Political-Legal

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When dealing with wireless communications, government regulations will always be a major role in service restrictions. With the increase in wireless communications use and the demand for larger bandwidth, the Federal Communications Commission (FCC) is continuously regulating frequency and bandwidth usage. With that in mind, FCC regulations must continuously be monitored and taken into consideration when looking to implement or upgrade current communications technology use.

With the GPS network being funded by the U. S. Department of Defense, a U. S Government organization, advancement in the technology will continue to grow and excel. And especially with current homeland security affairs, investments and funding for further GPS technology research will definitely be in high priority.

With increased regulations in the correct disposal of hazardous waste materials, tracking and monitoring of such items may become much more highly regarded. Environmental safety laws have been increased in recent years and could very well be given even stricter regulations. This market should be heavily monitored and looked into as a future investment.

Another strictly regulated industry is the trucking industry, which is Digital Angel GPS Tracking System's primary target market. The Federal Motor Carrier Safety Administration strongly enforces hours of service for truck drivers. In complying with safety regulations, trucking companies could well be forced to implement tracking systems to log real-time data of truck routes.