

# VeriWise™ Asset Intelligence

## How It Works

VeriWise™ is a two-way data transmission system in which various types of information can be sent from and received by the VeriWise™ device. Messages about activity at the trailer such as door and cargo status, the entering or exiting of geo-fences, and more, are transmitted from the VeriWise™ device installed on the trailer. Modifications to geo-fences, requests for location, and turning on or off of sensors are sent to the VeriWise™ device using over-the-air (OTA) commands.

### Geo-fencing

“Virtual fences” or geo-fences can be set-up around an address. When a trailer crosses the fence a “geo-fence entered” or “geo-fence exited” message is generated that provides location, date, and time. Using the Premier Services™ web interface, users can create, modify, assign, and delete geo-fences from their computer system. Alerts can be set to notify key people of geo-fence entered/exited activity.

### Emergency Tracking

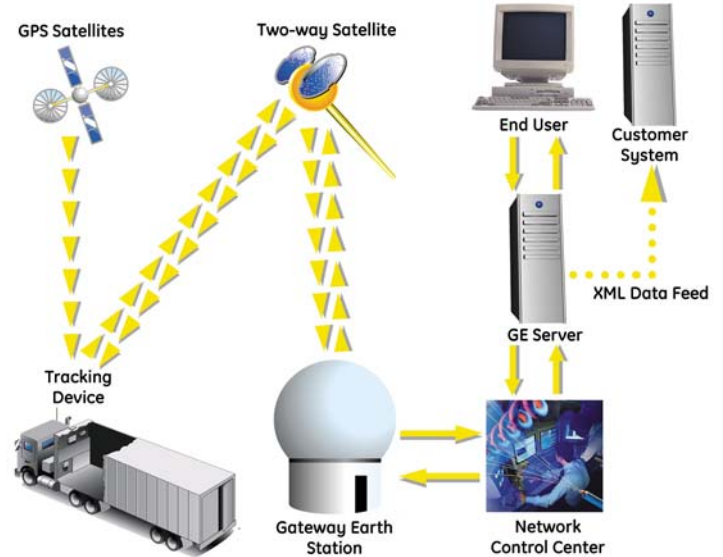
This feature is ideal for a variety of uses, including locating a certain trailer, keeping a close eye on high value/high security loads, or monitoring if a unit is reported stolen. Using the Premier Services™ web interface, users can turn on rapid reporting of the trailer’s location—whereby a trailer is polled at specific time intervals for a defined period of time.

### Proximity Search

Landmarks give VeriWise™ users the ability to name an address so it can be easily recognized on the web site. Proximity searches help users find trailers within a user-defined radius around a landmark or specified address. Using the Premier Services™ web interface, users can create, modify, and delete landmarks from their computer system.

### Additional Features

VeriWise Asset Intelligence is available for dry vans and refrigerated trailers. Contact your sales representative today for a complete demonstration of VeriWise’s many features and functions.



### GPS (global positioning system) satellites

continuously transmit signals that can be interpreted by special devices to help determine location. To get an accurate location fix, the VeriWise™ **tracking device** collects signals from multiple GPS satellites. The location is calculated by the VeriWise™ device at the trailer and transmitted through the **ORBCOMM low-earth orbit satellite** and a **gateway earth station** to a **Network Control Center**, and ultimately to **your computer system**. The data is visible through Trailer Fleet Services’ Premier Services™ web interface, or can be sent directly to your computer system via **XML data exchange**. Users can also poll the trailer to get its current location.

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## How It Works

### Door sensor

Dry vans can be equipped with a sensor placed on the door that will indicate when the door is opened or closed. A “door opened” or “door closed” message along with location, date, and time is sent when the door status changes. Using the Premier Services™ web interface, users can turn door sensors on or off using over-the-air (OTA) commands sent from their computer. Alerts can be set to notify key people when doors are opened or closed.



#### Guidelines for Door Sensor

- Transition from closed-to-open @ 10 to 30 degrees from closed position
- Transition from open-to-closed @ 30 to 10 degrees from closed position

#### Environmental:

- Operating Temperature Range: -30C to +60C
- Storage Temperature Range: -40C to +85C
- Operating Vibration: 1.82G rms (10Hz to 1KHz)
- Non-Operating Vibration: 5.20G rms (10Hz to 1KHz)
- Shock (half sine): 20G, 11ms duration
- Humidity: 95% non-condensing

#### Mechanical:

- Dimensions: Magnet LxWxH: 3" x 1" x .05"  
Sensor LxWxH: 3" x 1" x .05"  
Terminal box LxWxH: 4.85" x 3 x 2.19"
- Mounting: Magnet mounted to door, sensor mounted to frame, terminal box within 2' of the door

#### Electrical:

- Power Supply: Powered by VeriWise™
- Operating Current: <=10ua (average)

Sensor and Magnet manufactured by GE Security

### Cargo sensor

Dry vans can be equipped with a sensor placed on the front wall that will indicate when cargo is present within the measured zone of detection. A “cargo loaded” or “cargo empty” message along with location, date, and time is sent when the cargo status changes. Using the Premier Services™ web interface, users can turn cargo sensors on or off using over-the-air (OTA) commands sent from their computer. Alerts can be set to notify key people when cargo status changes occur.



#### Guidelines for Cargo Detection standard cargo size 4'x4'x4'

- Transition from unloaded-to-loaded @ 5' from front
- Transition from loaded-to-unloaded @ 16.0' from front

#### Environmental:

- Operating Temperature Range: -30C to +60C
- Storage Temperature Range: -40C to +85C
- Operating Vibration: 1.82G rms (10Hz to 1KHz)
- Non-Operating Vibration: 5.20G rms (10Hz to 1KHz)
- Shock (half sine): 20G, 11ms duration
- Humidity: 95% non-condensing

#### Mechanical:

- Dimensions: Face: 3.45" x 5.40",  
Overall Mounted Depth: 2.50"
- Mounting: Bracket fastened to front wall

#### Electrical:

- Power Supply: Powered by VeriWise™, 3.6 to 8.0 VDC
- Signal Interface: RS-232
- Operating Current: <=50mA (average)
- RFI/EMI: EN55022, Class B or better
- ESD: 2kV, Human body model, all pins

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