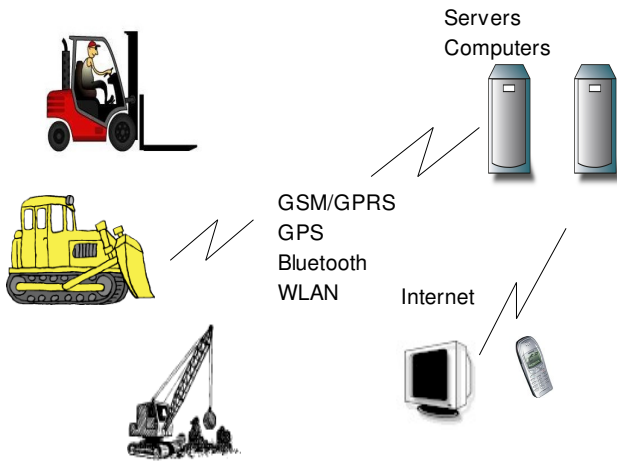


## Rhino™ Remote Machinery Monitoring



- Continuous wireless monitoring of operations of remote machinery and equipment
- More information on the actual use and usability of machinery
- Always up-to-date and accurate information
- Fleet management information system
- Information for maintenance scheduling
- Remote access to information via Internet

### Information on the Use of Remote Machinery

Rhino™ Remote Monitoring Application software is to utilize latest technology to gather versatile information and data from remote machinery and equipment. Increased information is useful to improve operations and productivity. Industrial machinery such as forklift and warehouse trucks, industrial lifts, construction machines, off-the-road vehicles etc. can be remotely monitored and surveyed to get an always up-to-date data of their usage and state of operation.

### Information on Entire Fleet from Anywhere

With Rhino™ information such as machine time, operating time, positioning and actual operating hours of remote machines and vehicles are typically monitored. The main operating parameters of an industrial machine and its various parts such as engine, electrical systems, and hydraulics can as well be monitored, compared against nominal values, and used to estimate the reliability and quality of operation as well as assess the effectivity of operation. The information is specific to each machine and thus the degree of the capacity utilization is known. The information can be processed locally, stored locally if desired, and wirelessly transmitted either at regular times or triggered by actions such as starting/stopping the engine, a predefined alarm signal, etc.. When at the server, this data can be used to compare against parameters, to calculate and combine for reports, and summaries. The information

can be remotely accessed via Internet using secure web connection. Parametres, and metering scales can be selected, and possible remote control actions can be taken.

## **Platypus™ Terminal Device for Industrial Vehicles and Devices**

Each industrial machine is equipped with Platypus™ , which is state-of-the-art remote terminal designed for industrial use in various demanding environments. Small and handy Platypus™ and required detectors are easy to install into industrial machines, vehicles, etc.. Platypus™ and Rhino™ include open software and hardware interfaces.

## **Service System to Improve Productivity**

Rhino™ application software and Platypus™ remote terminal device can be used to implement a developed and versatile service system. Operative machinery and assets of an organization can be monitored regarding the use, level of operation, performance, control, etc., The entire service systems consists of installed remote terminals – each with installed Rhino™ software - , wireless data transfer, and an information handling in a computer system with one or more servers, applications, databases, and Internet user interfaces.

## **Functional Features**

- operating hours and operating times of a forklift, industrial device, off-the-road vehicle, etc.
- driver's operating hours (optional, requires Platypus™- driver identification option)
- shock sensing, identification of collitions, hits, shocks
- positioning, GPS in outdoor installations, WLAN option at shorter distances inside
- additional 6 pcs of configurable signal inputs (A/D, wave, pulse, vibration)
- measurement parametres are configurable via Internet interface
- optional features include e.g. driver identification and/or accesss control, messages to driver on display, CAN bus information, alarms, etc.
- open interfaces; extensible, and expandable

Rhino™, and Platypus™ are trademarks of Oliotalo Oy.