

## FleetPump Pump Management Solution

Ayantra - a leading developer of remote asset management products - has created a solution for managing remote pumps and irrigation systems.

### The Challenge:

A typical farm has several pieces of irrigation equipment dispersed over a wide geography. Field managers must know at all times if

- ❖ any pump has shut down unexpectedly
- ❖ any pump's fuel tank is low
- ❖ the output water pressure on any pump has dropped
- ❖ if anything has gone wrong with any pump

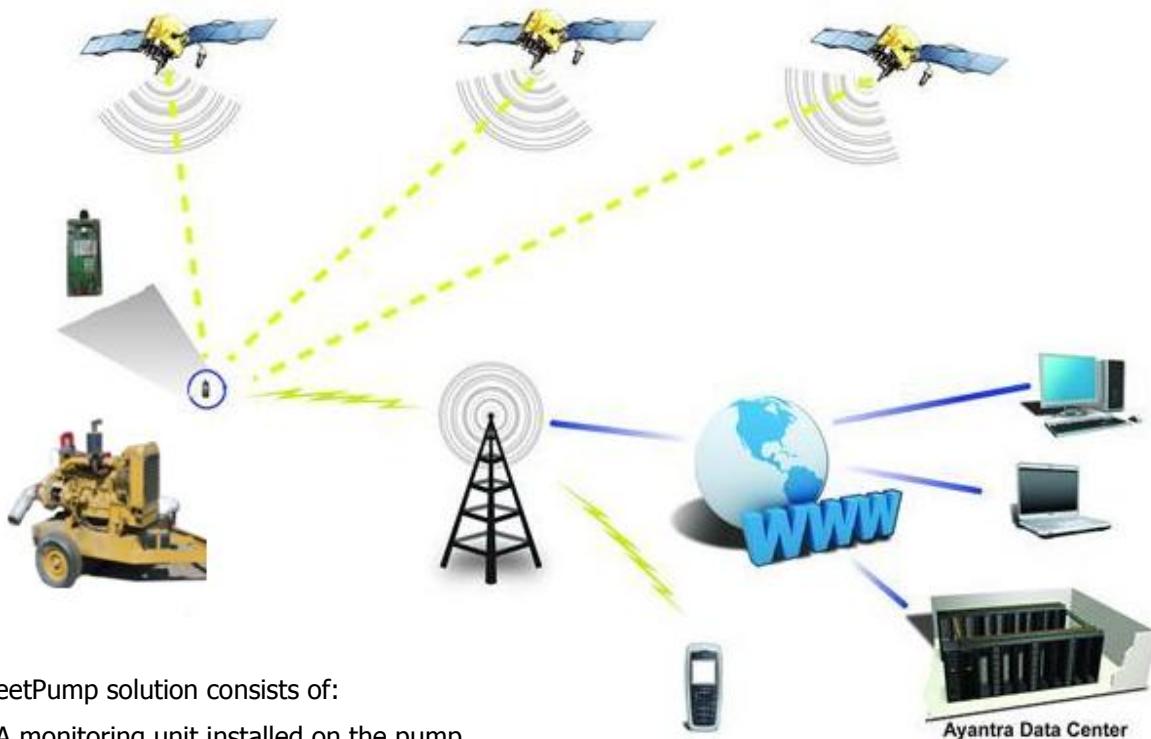


Unfortunately, current methods for managing field pumps and irrigation systems are manual, time-consuming and error-prone.




Managing remote pumps is difficult. Ayantra can help.

### The Solution:

Ayantra's FleetPump is a web-based wireless solution for managing fixed and mobile pumps. FleetPump can monitor any make or model of pump, and it supports hybrid fleets. ***With the average cost of a truck roll at \$ 75 or more, a pump management solution can pay for itself very quickly.***













The FleetPump solution consists of:

-  A monitoring unit installed on the pump
-  An optional Ayantra-provided sensor to monitor water pressure
-  An Ayantra-provided website for full reporting and control

# FleetPump Pump Management Solution

## Key Features

-  **LOCATION AND ENGINE RUN-HOUR INFO:** FleetPump automatically reports the Location, Status and Engine Run-Hours of each monitored pump.
-  **REPORT UNEXPECTED SHUTDOWNS:** FleetPump sends immediate Alert Notifications if a pump unexpectedly shuts down. Alert Notifications can be sent as text messages and/or as email messages.
-  **REPORT LOW FUEL:** When used with a float level fuel sensor, the FleetPump monitoring unit can report when the pump's fuel tank is beginning to run low.
-  **REPORT FAULTS:** The FleetPump monitoring unit can be connected to a pump's control panel to report upon any five user-defined Faults. FleetPump can issue real-time Alert Notifications if any Fault event should occur.
-  **REPORT WATER PRESSURE PROBLEMS:** An optional pressure sensor enables the FleetPump monitoring unit to send real-time Alert Notifications if the output water pressure drops below a user-defined threshold.
-  **"SERVICE DUE REMINDERS":** FleetPump automatically reports each pump's current Engine Run-Hours, and can issue "Service Due" reminders when each pump is due for maintenance.
-  **"LOW BATTERY" and "BATTERY TAMPER" NOTIFICATIONS:** The FleetPump monitoring unit continually checks the pump's battery. If the battery level drops too low, the monitoring unit will send a "Low Battery" Alert. If the battery is disconnected, the monitoring unit will issue a "Battery Tamper" Alert.
-  **BACKUP BATTERY:** The FleetPump monitoring unit includes a built-in backup battery that enables it to continue functioning if the main battery has failed or been disconnected.
-  **POWERSAVE MODE:** The FleetPump monitoring unit will automatically enter its PowerSave mode after the pump's engine has been turned off. The PowerSave mode reduces the monitoring unit's power consumption to protect the pump's battery. All regularly-scheduled reports and alert notifications will continue while the unit is in PowerSave mode.
-  **ACCOUNTABILITY REPORTS:** FleetPump enables users to identify when and where each pump was utilized. This information can help fleet managers to optimize field operations, and it can also be used to comply with government reporting requirements (notably for the California Air Resources Board).

## Hardware Specifications:

- ❖ Physical: 4.75" x 2.60" x 1.40"
- ❖ Power: 8 - 32 volts DC
- ❖ Power Draw:
  - Active: 75 mA (typ) @ 12V
  - PowerSave: 25 mA (typ) @ 12V
- ❖ Built-in back-up battery
- ❖ Environment:
  - Monitoring unit - Operating: -20°C → +60°C
  - Monitoring unit - Storage: -45°C → +85°C
- ❖ Humidity: 0 - 95 RH @ 40C
- ❖ I/O Ports:
  - Input Ports: 6 Inputs (4 user-configurable)
  - Output Ports: 2 Outputs (both used for Remote Start)

