Remote Fuel Monitoring & Access Control
A Practical Application

**Ultrasonic Fuel Level Sensor**
The UFLS includes a feature that alerts you if your tank level is dropping too quickly, protecting you from fuel leaks, theft and over-use.
The sensor is based on Ultrasonic measurement technology and can monitor a variety of liquids in multiple tank types.

**User Fingerprint Access**
AKCP Fingerprint Readers come equipped with advanced capture technology.
This not only provides a high level of security but also real time access statistics for your entire remote site infrastructure.

**AKCess Pro Door Control Unit**
The Door Control Unit works in parallel with your existing environmental monitoring solutions from AKCP.
Existing clients and customers who already have Remote Environmental Monitoring for their Fuel Stations or Remote Telecom Sites can easily add AKCP's Access system.

- Easily installed using plug and play connections.
- Trigger recording actions on Sensor Events then email or send via MMS as a picture record.
- Integrates with environmental monitoring with unlimited expansion.
- No need to integrate third party applications or hardware.

Integrates with Existing AKCess Pro Solutions.
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Stage One: Fingerprint Capture
Once captured, a Fingerprint is mapped and key points of interest are stored in a "Template" file.
The database of users is then queried to find the owner of the Fingerprint.
Once verified, a record of the user is kept in both the local storage of the Door Control Unit and transmitted securely to the AKCess Pro Server.

Stage Two: Video Recording & Notifications
Sensor Notifications can be used to automate corrective action or to turn equipment on or off. In this instance, the fuel pump is activated by the use of a 12V Relay. Thus allowing the User access to the Fuel.

When using an EDGE-180 Modem use the “Heartbeat” feature to “Push” Sensor and Picture Log information at predefined intervals.

If an open connection can be established all of the time, the Door Control Unit has a built in “Secure openVPN” feature which can connect seamlessly to AKCess Pro Server.

This modem is ideal for remote locations where a Door Control Unit is being used to monitor and control access to critical resources. Once connected to the Door Control Unit you can use the usual notification and alerting functions to:

Send SMS, MMS and Voice call alerts instantly from the Door Control Unit.
Connect wirelessly to the AKCess Pro Server Application

Accelerated Rate of Change
The Ultrasonic Fuel Level Sensor comes equipped with advanced rate of change detection that measures the level rate in a percentage from 1% to 50% over a period of time from 1 to 20 minutes.

You can set the direction to Up, Down, or Both and you can set the Status when the limit is exceeded to show either High Critical or Low Critical.

Camera Recording, Sensor & Image Information Stored
EDGE / GPRS / GSM Link to AKCess Pro Server Established
Stage Three: AKCess Pro Server

With every verified Fingerprint, a timestamped Access Log is kept that records each request for Fuel.

If a User does not have the necessary permissions to access the Fuel Pump, this is registered with the System, showing the Users Name, along with where and when they tried to Access the Pump. See Figure 1.

All user information is held both locally on the Door Control Unit and on the AKCess Pro Server. Once synchronized, the Door Control Unit works independently of the Server until which point the User chooses to synchronize the unit’s with the Server Database.

Figure 1 - Detailed Access Reports show, the User Name along with Where and When the user tried to access the pumping station.

Figure 2 - Integrated RRD Graphing eliminates the need for 3rd Party Graphing Utilities. View Multiple Graphs across Multiple Sites.

Recorded Footage of Theft, Leaks and Over-Use
Stage Three: AKCess Pro Server

What’s more, with AKCess Pro Server you can drag & drop your doors, sensors, cameras and access control readers - all of your monitoring devices, onto any map of your choice.

Monitor an overview, or drill down to a specific device location. Maps showing cities, countries, buildings, and specific rooms are easily combined as a visual representation with a host of preset animations to use.

Sensors are dragged into the Map and displayed by Region.

Integration with over 2000+ ONVIF Compatible IP Cameras

AKCess Pro Server supports over 2000 compatible ONVIF IP Cameras. What’s more, you can add and configure IP Cameras directly from the AKCess Pro Server Interface. Using AKCP’s newly developed scanning algorithm, you can find and start using ONVIF Compliant IP Camera’s located on your network instantly.

Add Additional Sensors...

It’s easy to integrate with existing solutions or add additional High Definition digital cameras, environmental sensors, siren strobe alarms, smoke detectors, power monitors, and relay switches to existing local or remote sites.

Sales Information

For more information regarding Remote Fuel Monitoring & Access Control contact our Sales Team at sales@akcp.com or visit our website www.AKCP.com