

## APS (Autonomous Power Supplier)

European GSM providers that expand their activities to African countries, usually face problems when it comes to power supply the GSM Rx-Tx cellular system. To resolve the problem they use APS systems that are 20' containers with battery-arrays and dc-ac inverters stored inside. The batteries may charge by the use of a photovoltaic element or a windmill generator, mounted on top of the container, or a diesel engine generator stored inside the container, or even any combination of those. It is vital to monitor the inner temperature, as very low or very high temperatures may cause fatal problems to the batteries. At the same time, it is also important to monitor the battery voltage and the current consumed by the station, for the A/C system and the GSM transmitter, as well as the photovoltaic, windmill, or diesel generated current(s). It is also useful to monitor the diesel-oil level in the tank included in the container, to prevent lack of fuel for the diesel-generator operation.



Typically, APS systems are spread around a very wide area, located in remote sites, where in most of the cases it is difficult to be accessed by technical personnel for inspection, or maintenance.

The use of iLOG-GSM is the solution to the problem:

Each APS carries a monitoring system based on an iLOG-GSM that automatically transmits the station readings, on predefined time intervals, using Internet access via GSM to send data files to multiple Email accounts or FTP sites. At the same, alarms are immediately transmitted via the GSM network to multiple SMS recipients.

This way, crucial information on the APS operation is always in hand, regardless of how far the APS is actually located, while immediate alarming allows technical personnel to handle maintenance.