

## D-300

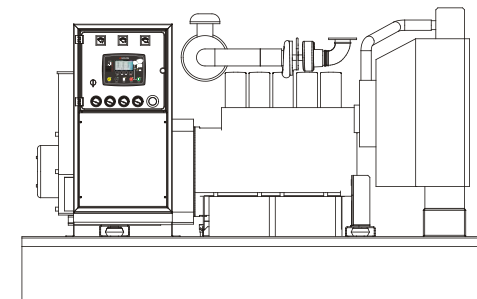
# INTERNET ENABLED GENSET CONTROLLER

# MULTIFUNCTIONAL

THE SAME UNIT IS A ...



- AMF UNIT
- ATS CONTROLLER
- REMOTE START CONTROLLER
- ENGINE CONTROLLER
- REMOTE DISPLAY UNIT

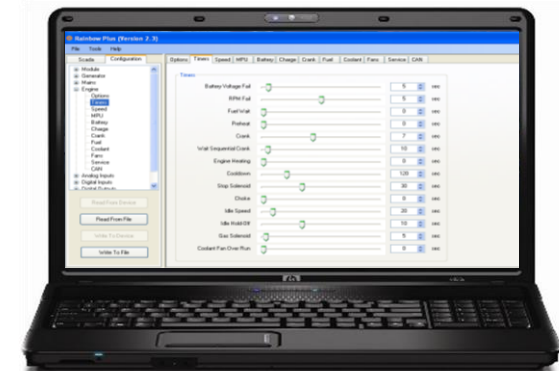
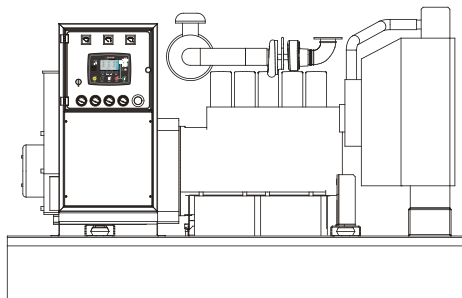
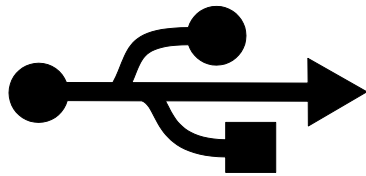


REDUCE YOUR STOCK ITEMS !

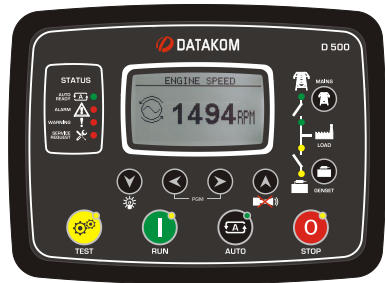


# EASY PROGRAMMING

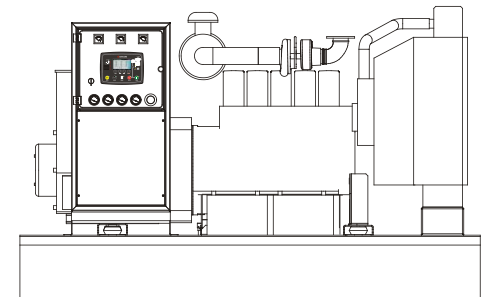
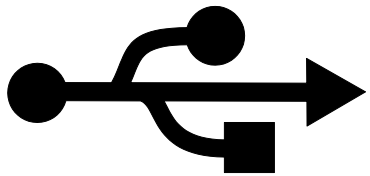
- ❑ EASY TO USE PC CONFIGURATION PROGRAM: RAINBOW PLUS
- ❑ PC PROGRAM CONNECTS THROUGH USB + RS232
- ❑ REMOTE PARAMETER SETTING THROUGH INTERNET
- ❑ ALL PARAMETERS FRONT PANEL ADJUSTABLE
- ❑ DETAILED TRAINING MATERIAL



# DATA PORTS



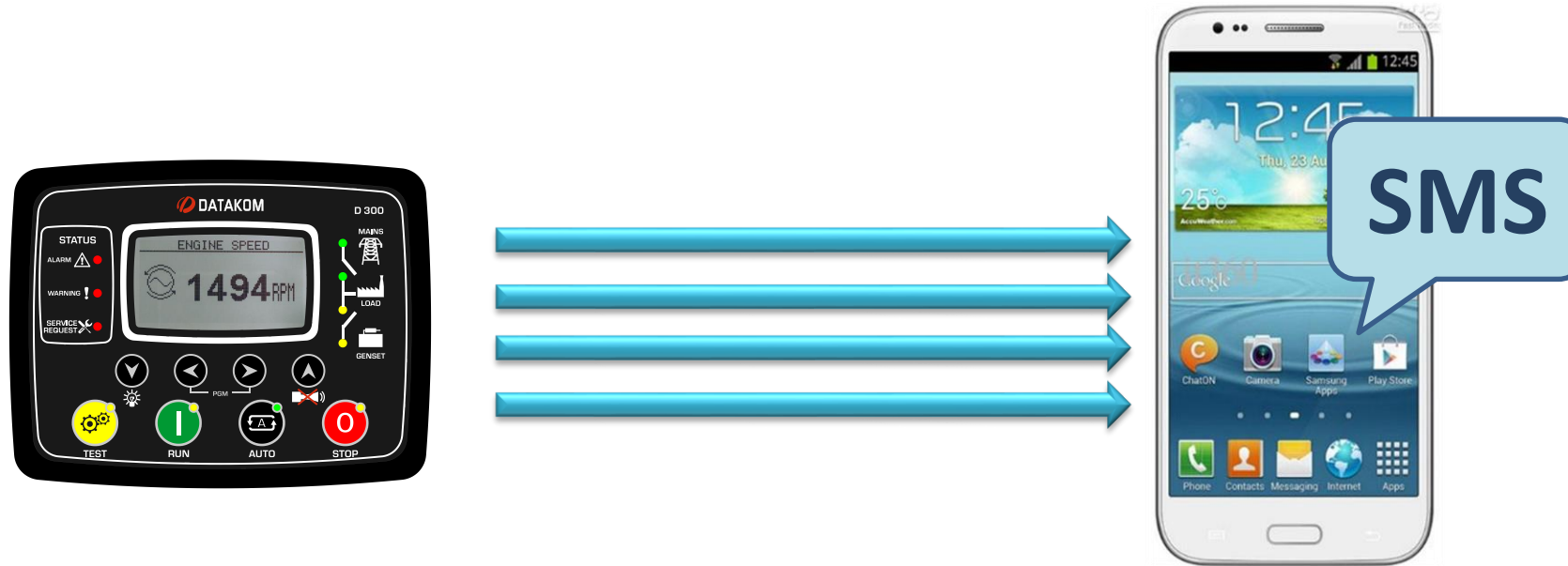
- INTERNAL GPRS MODEM
- RS-232 (MODBUS RTU, GPS, EXTERNAL MODEM)
- USB DEVICE (PC CONNECTION)



# CONNECTION CAPABILITIES



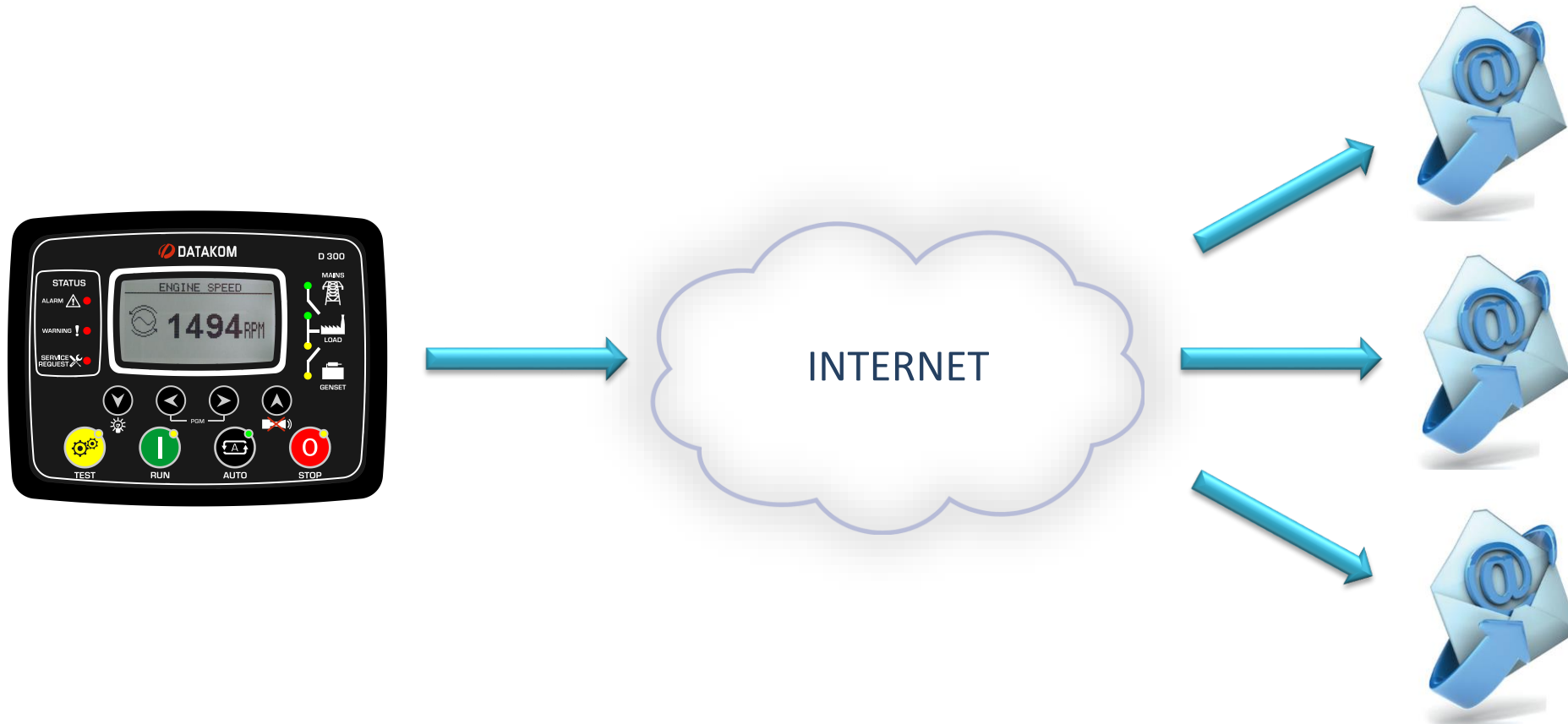
# SMS SENDING



UP TO 4 DIFFERENT PHONE NUMBERS ALLOWED



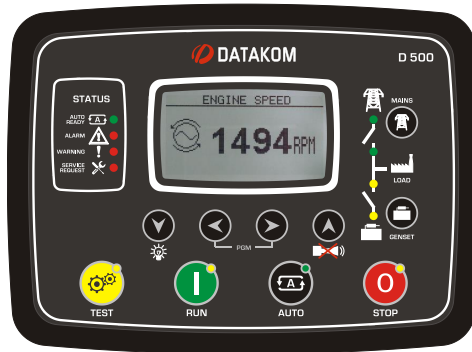
# E-MAIL SENDING



UP TO 3 DIFFERENT E-MAIL ADDRESSES ALLOWED



# INTERNET FEATURES



- PARAMETER SETTING THROUGH INTERNET
- CENTRAL MONITORING THROUGH INTERNET
- E-MAIL SENDING

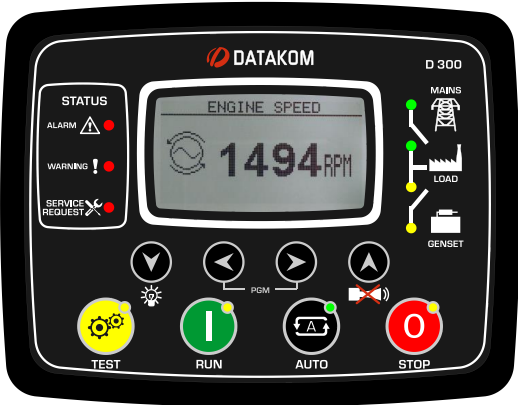




# REMOTE MONITORING



# INTERNET CONNECTION

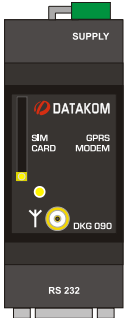


CONTROLLER

INTERNAL GPRS MODEM



OR



GPRS MODEM



# EASY INSTALLATION - GPRS

GPRS CONNECTION SUPPORTS DYNAMIC IP AND LOCAL IP !

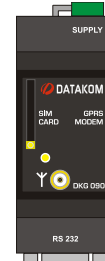


CONTROLLER

GPRS MODEM

RS 232

GPRS MODEM



DKG 090



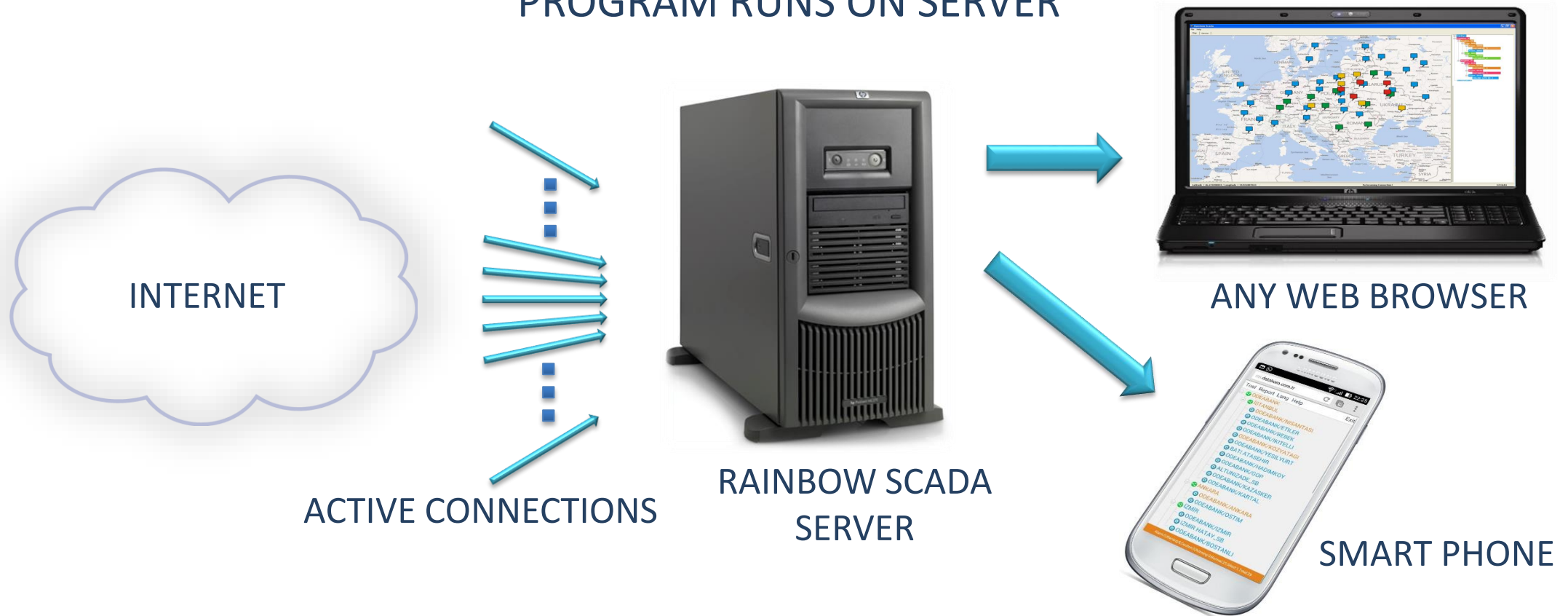
RAINBOW SCADA  
SERVER

- NO REAL IP REQUIRED
- NO STATIC IP REQUIRED
- NO DATA SERVER REQUIRED
- PLUG & PLAY WITH ANY DATA SIM CARD



# RAINBOW SCADA PROGRAM

PROGRAM RUNS ON SERVER

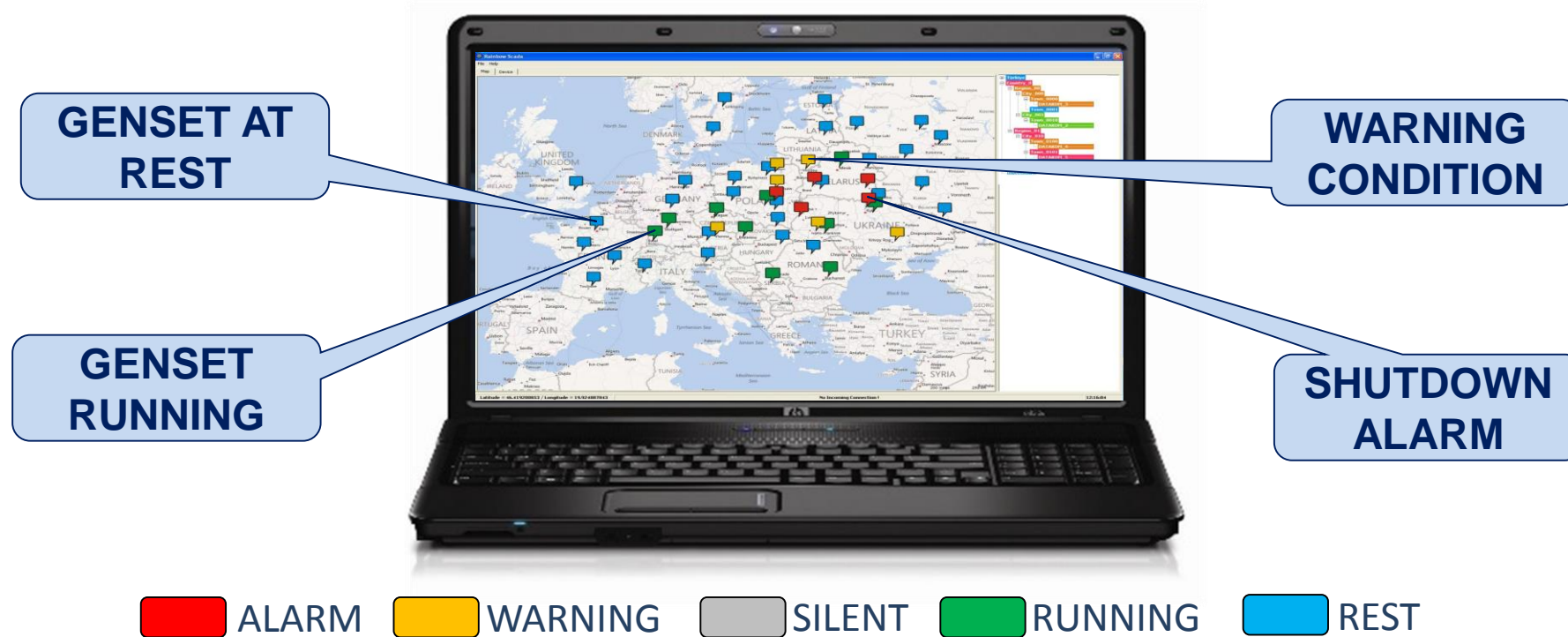


RAINBOW SCADA SERVER SUPPORTS 60'000 ACTIVE CONNECTIONS



# CHART MODE DISPLAY

MONITOR YOUR COMPLETE FLEET ON ONE SCREEN

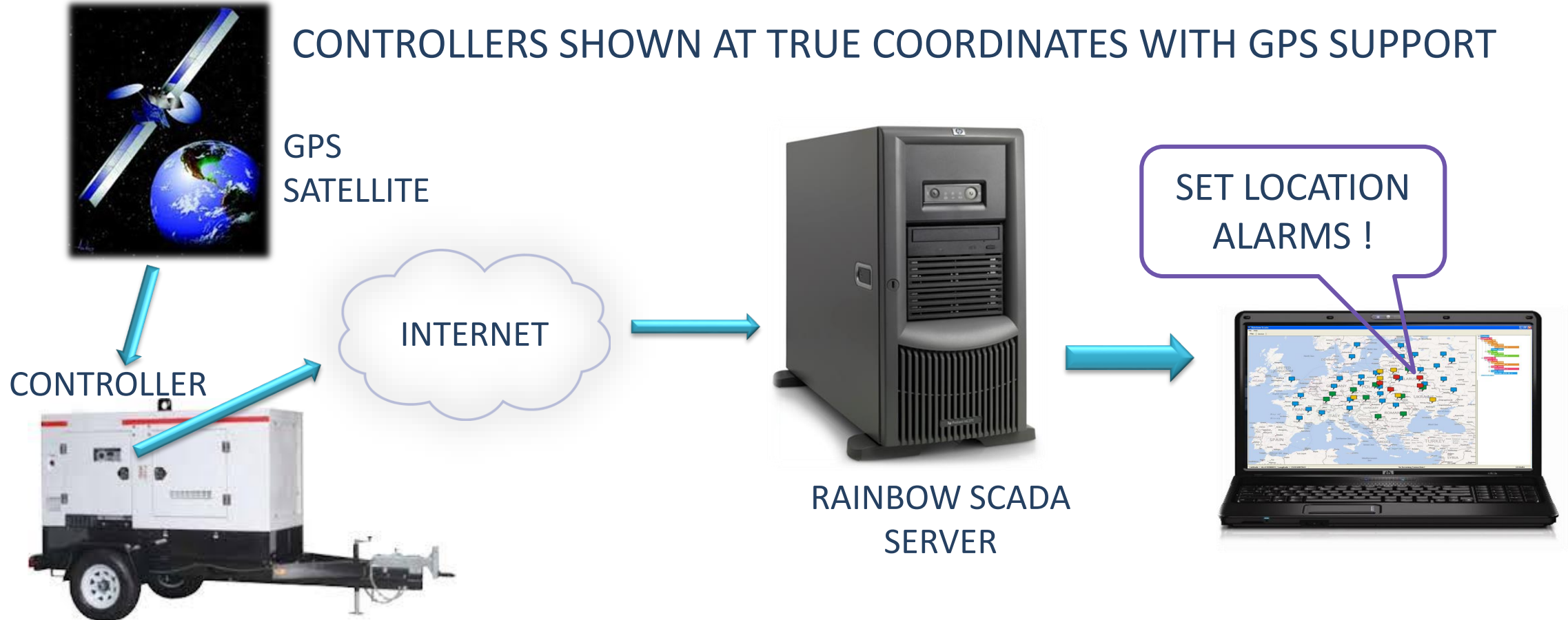


THE COLOUR OF THE BOX SHOWS DEVICE STATUS !



# MOBILE GENSET SUPPORT

CONTROLLERS SHOWN AT TRUE COORDINATES WITH GPS SUPPORT

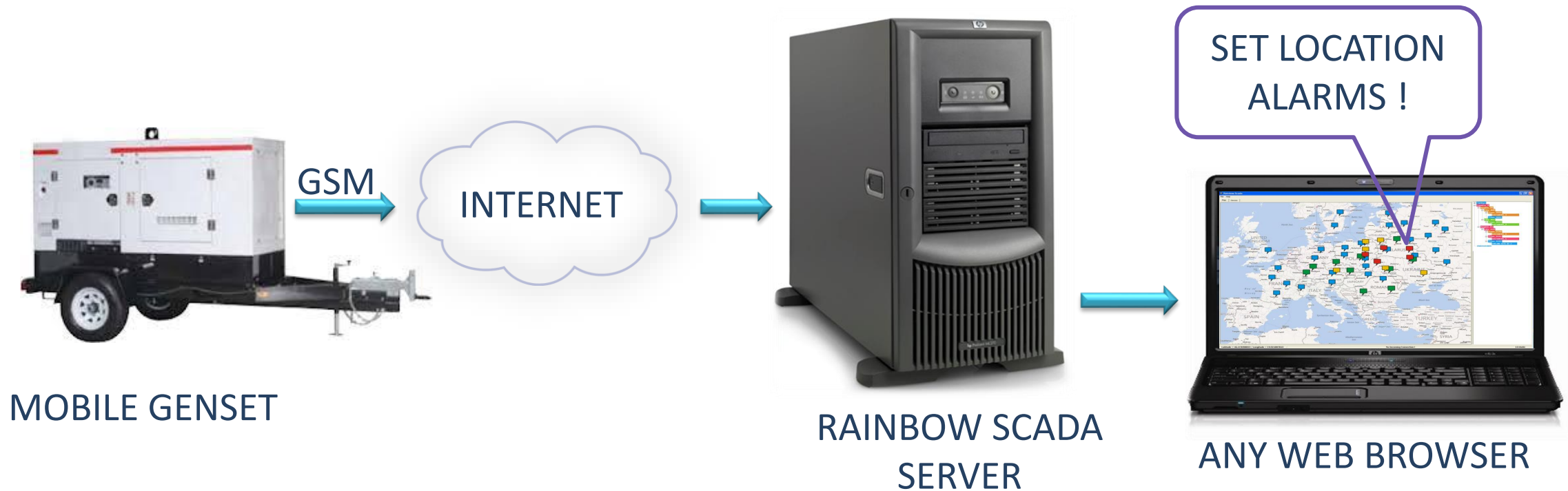


MONITOR YOUR MOBILE FLEET ON-LINE !



# MOBILE GENSET SUPPORT

## LOCATION DETERMINATION OVER GSM NETWORK



MONITOR YOUR MOBILE FLEET ON-LINE !



# GROUPING OF GENSETS





# TABLET PC & SMART PHONE SUPPORT



# CREATE YOUR OWN ACCOUNT

**Rainbow Scada Login**

datakom

••••••

Login

Manage

LOGIN AND USE  
«MANAGE»  
OPTION



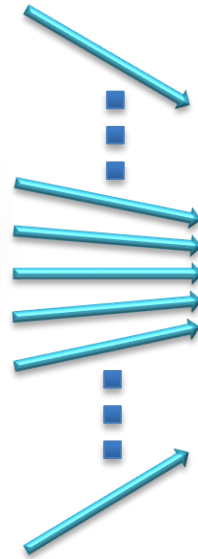
RAINBOW SCADA  
MANAGING SCREEN

NO NEED TO WAIT FOR SUPPORT



# CREATE YOUR OWN SUB\_USERS

## RAINBOW SCADA SERVER



RESELL YOUR DATA AND HAVE REVENUE !

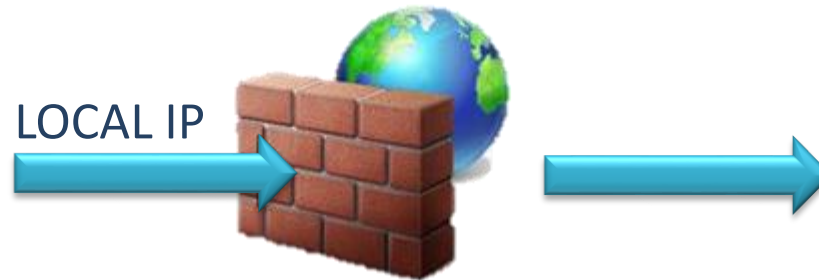


# DATA SECURITY

DATA IS SENT TO RAINBOW SCADA SERVER ONLY !



CONTROLLER



FIREWALL



RAINBOW SCADA  
SERVER

NOBODY CAN REACH YOUR CONTROLLER !



# DETAIL MONITORING

## MONITOR ONLINE & REAL TIME

A PC monitor displays the Datakom monitoring application interface. The background is a map of Turkey. A window titled "Device Values (GENERATOR)" is open, showing a "Summary" tab with a table of real-time data for a generator. The table is organized into three columns: Mains, Genset, and Battery/Engine parameters. The data includes voltage levels (Mains L1-L3, Genset L1-L3), current (Mains I1-I3, Genset I1-I3), frequency (Mains Freq, Genset Freq), power (Mains P Total, Genset P Total), and various temperature and pressure readings (Oil Pressure, Coolant Temp, Oil Temp, Fuel Level).

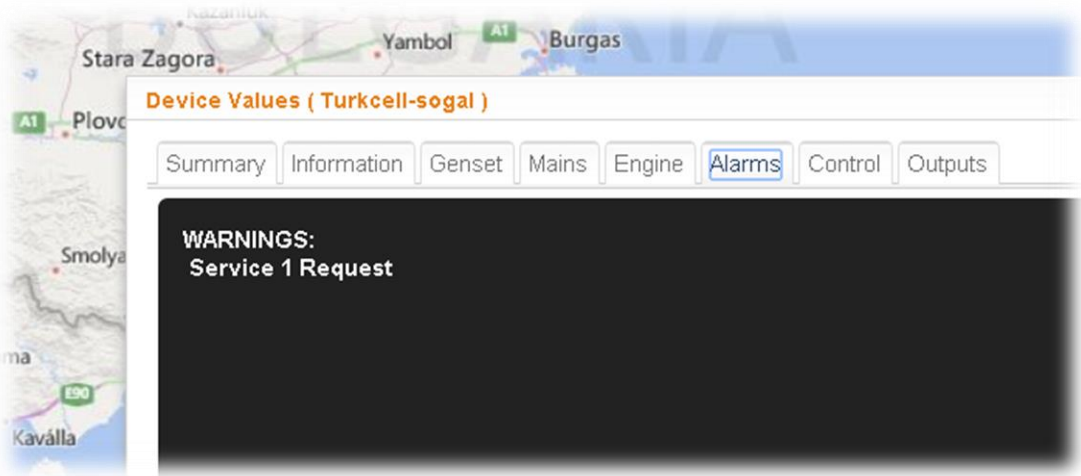
Mains L1 : 226.9 V	Genset L1 : 0.0 V	Battery Voltage : 13.70 Vdc
Mains L2 : 228.0 V	Genset L2 : 0.0 V	Engine RPM : 0 RPM
Mains L3 : 228.5 V	Genset L3 : 0.0 V	Oil Pressure : 0.0 Bar / 0.0 Psi
Mains L1-L2 : 394.6 V	Genset L1-L2 : 0.0 V	Coolant Temp : 56.7 °C / 134.0 °F
Mains L2-L3 : 394.6 V	Genset L2-L3 : 0.0 V	Oil Temp : N/A °C / °F
Mains L3-L1 : 394.6 V	Genset L3-L1 : 0.0 V	Fuel Level : N/A %
Mains I1 : 0.0 A	Genset I1 : 0.0 A	Engine Run Hours : 11.38 Hrs
Mains I2 : 0.0 A	Genset I2 : 0.0 A	Total kWh : 34.5 kWh
Mains I3 : 0.0 A	Genset I3 : 0.0 A	Total kVARh (Ind) : 2.6 kVARh
Mains Freq : 49.99 Hz	Genset Freq : 0.00 Hz	Total kVARh (Cap) : 35.4 kVARh
Mains P Total : 0.0 kW	Genset P Total : 0.0 kW	Hours to Srv1 : 248.34 Hrs
Mains Q Total : 0.0 kVAR	Genset Q Total : 0.0 kVAR	Days to Srv1 : 38.42 Day
Mains S Total : 0.0 kVA	Genset S Total : 0.0 kVA	
Mains Pwr Factor : 1.000	Genset Pwr Factor : 1.000	

## MONITOR WITH PC, TABLET OR SMARTPHONE



# REMOTE ALARM MONITORING

MONITOR ONLINE & REAL TIME

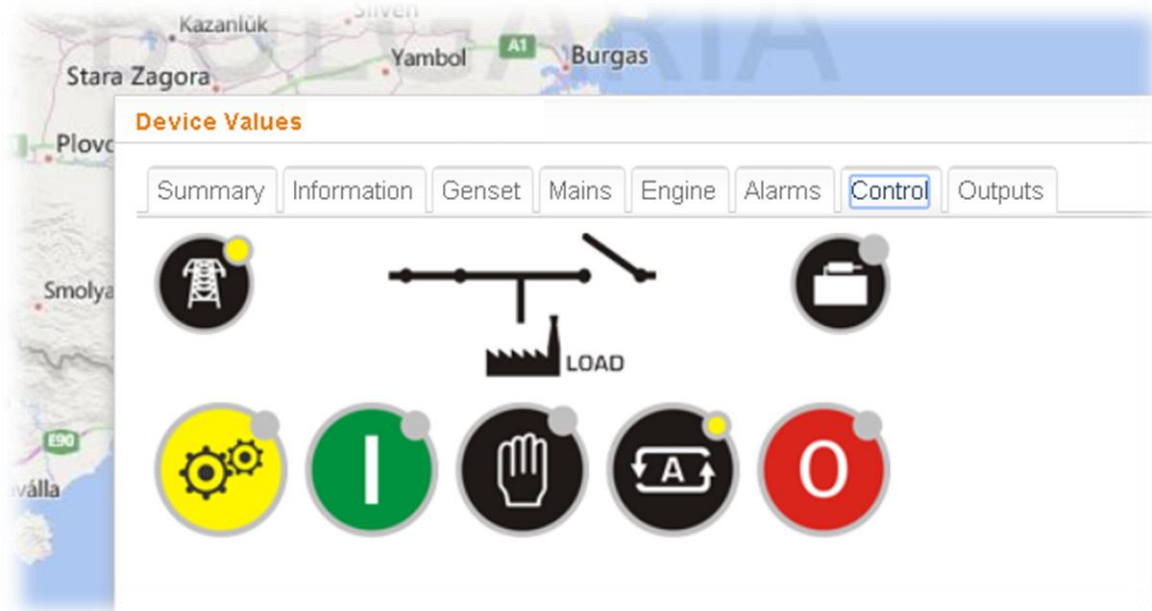


MONITOR WITH PC, TABLET OR SMARTPHONE



# REMOTE CONTROL & REMOTE FAULT RESET

## RESET ALARMS ONLINE & REAL TIME

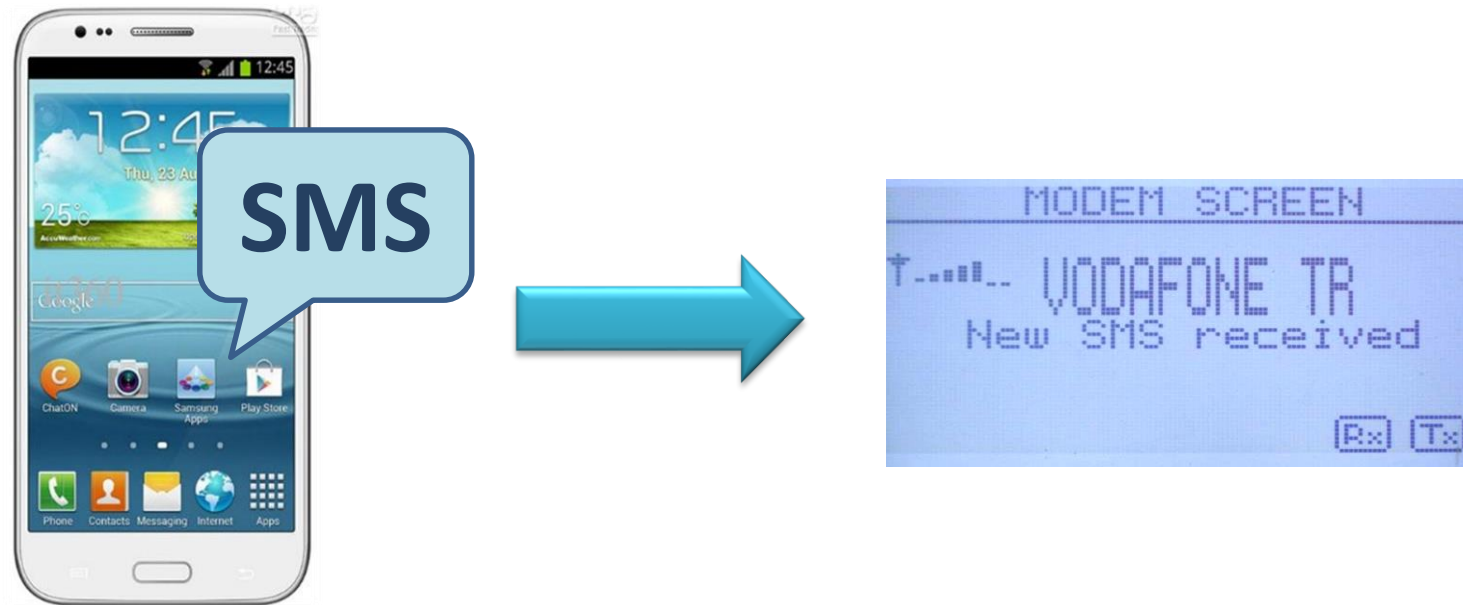


RESET ALARMS WITH PC, TABLET OR SMARTPHONE



# REMOTE FAULT RESET VIA SMS

YOUR CRITICAL SITE IS ALWAYS UP !



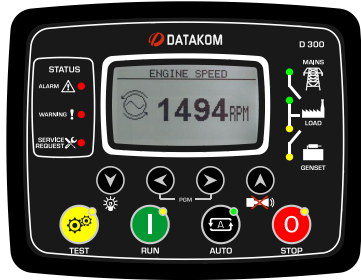
RESET ALARMS !





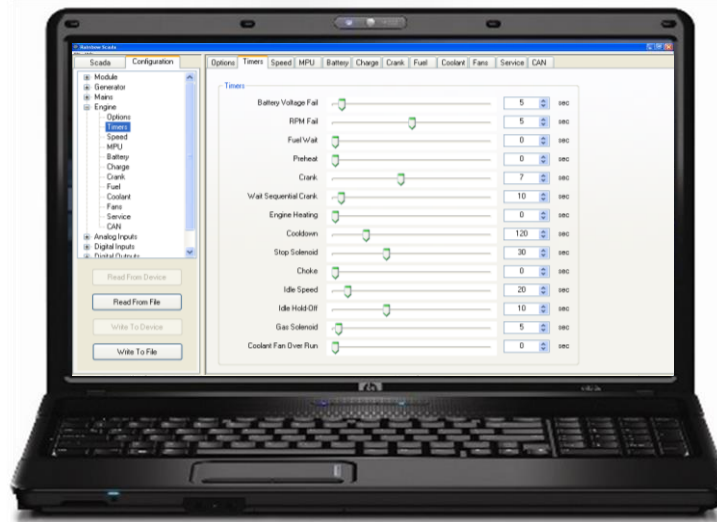
# REMOTE PARAMETER EDIT

CONTROLLER



RAINBOW  
SCADA  
SERVER

RAINBOW PLUS  
PROGRAM

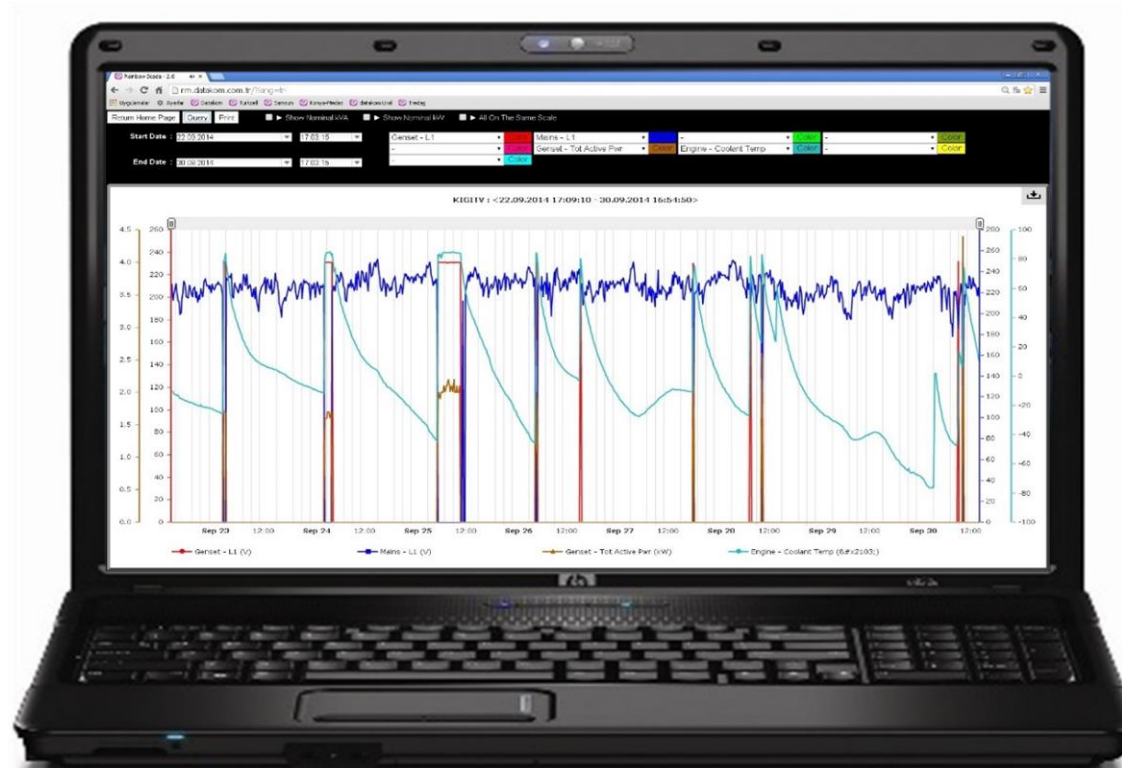


SAVE TIME AND SERVICE COST



# DATA ANALYSIS

PAST DATA IS STORED ON SERVER !



DATA CAN BE SAVED AS:

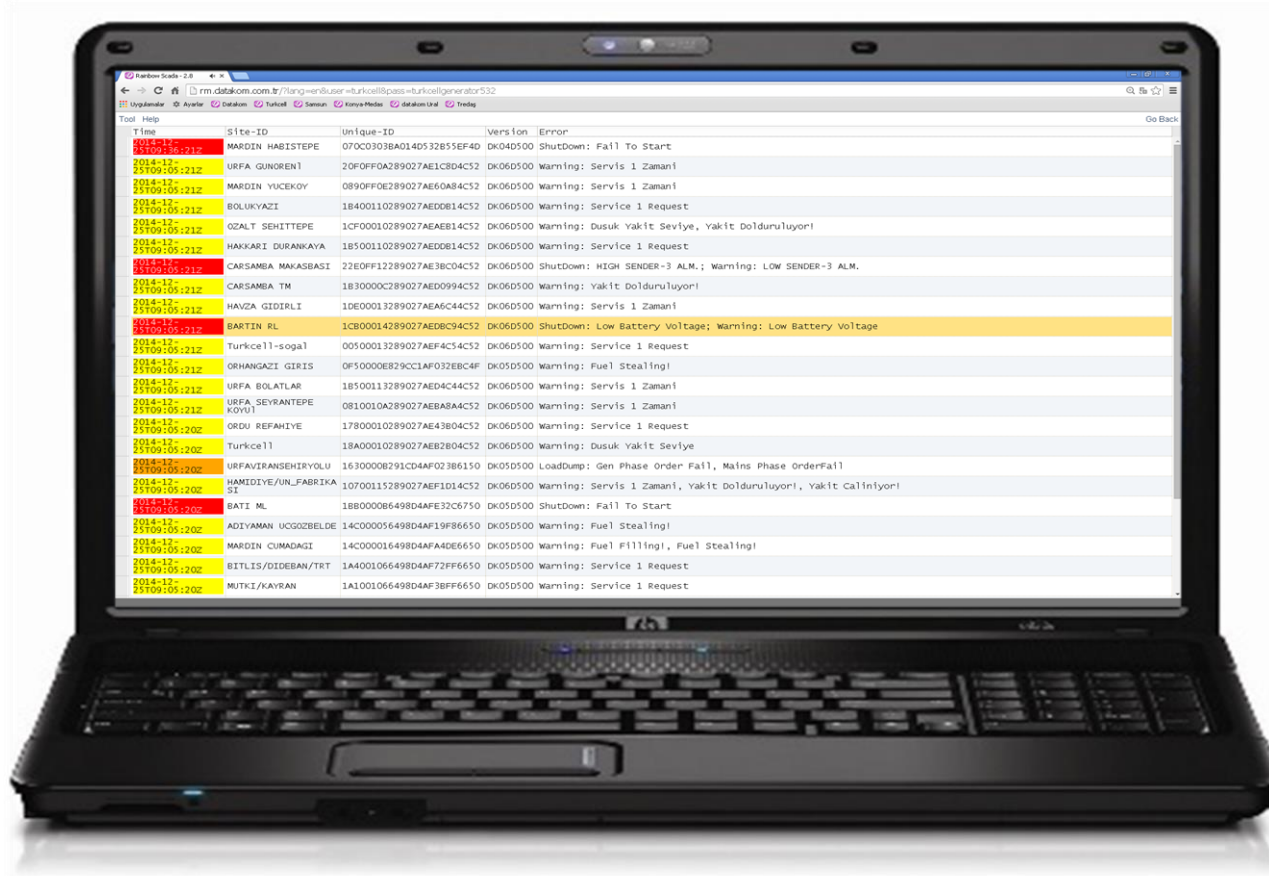
- **JPG FILES**
- **EXCEL FILES**

ANALYSE PAST PERFORMANCE OF YOUR SYSTEM !



# ONLINE ALARM MANAGEMENT

DESIGNED FOR CONTROL CENTERS

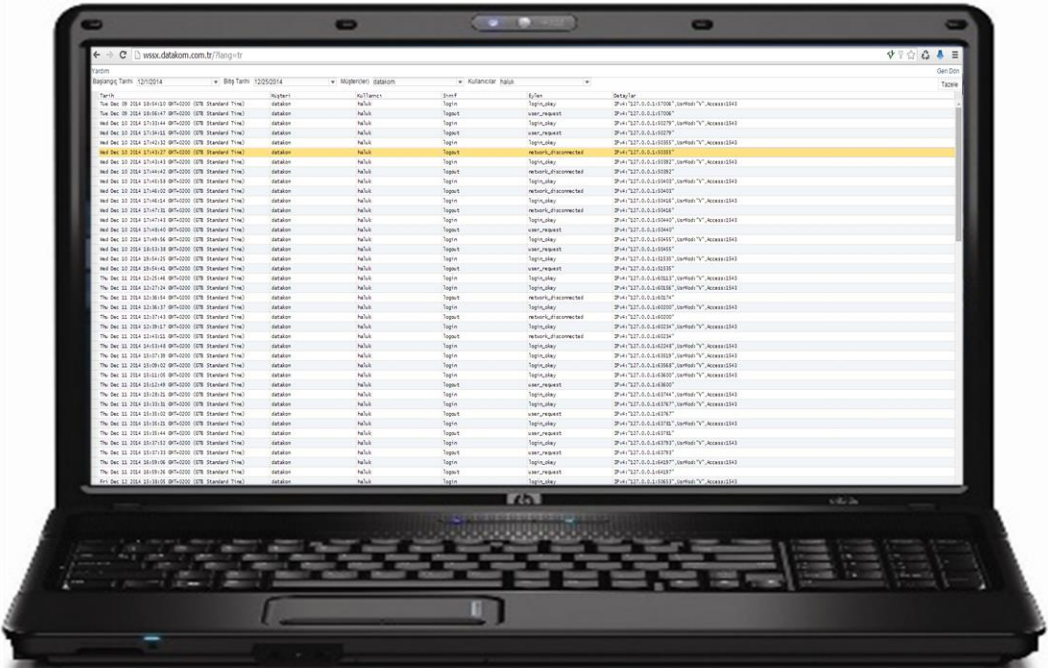


ALARM HISTORY IS RECORDED INTO DATABASE



# CUSTOMER LOGIN HISTORY RECORDING

## MONITOR SUB-USER ACTIVITIES



LOGIN HISTORY IS  
RECORDED INTO  
DATABASE

HELPS TO INCREASE SECURITY !



# DETAILED REPORTING

ALLOWS TIME-FRAMED REPORTING OF SELECTED PARAMETERS

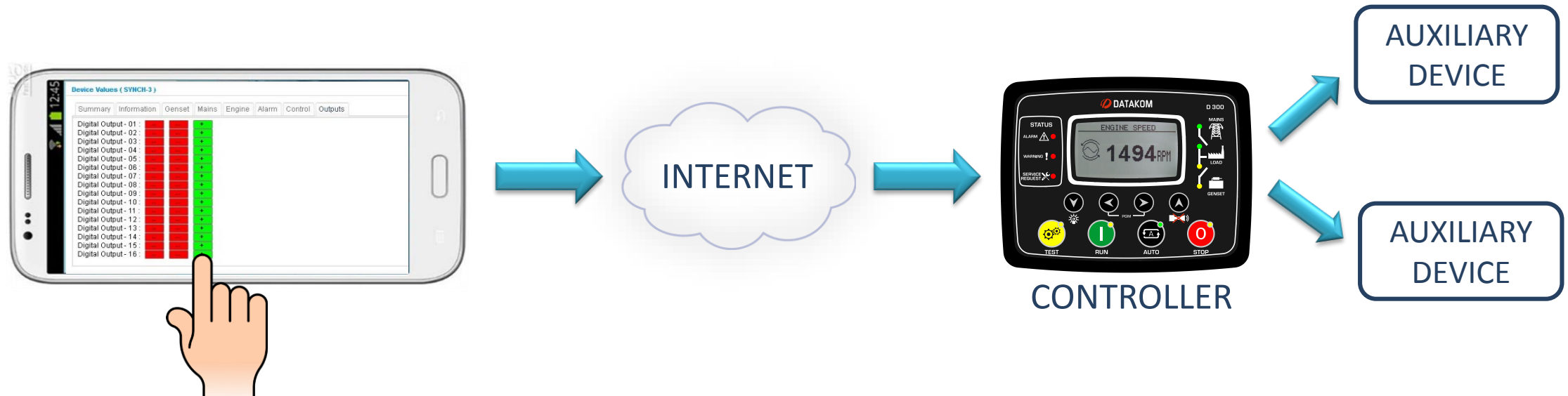


- FUEL CONSUMPTION REPORTS
- kW/fuel EFFICIENCY REPORTS
- POWER GENERATION REPORTS
- POWER CONSUMPTION REPORTS
- AVERAGE VALUES
- MIN-MAX VALUES

PROVIDES HELP FOR BETTER MANAGEABILITY OF YOUR FLEET !



# REMOTE CONTROL OF AUXILIARY DEVICES



# MONITOR ALL DATAKOM PRODUCTS

GENSET  
CONTROLLERS



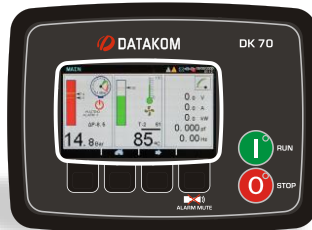
POWER  
ANALYSERS



REACTIVE  
POWER  
CONTROLLERS



COMPRESSOR  
CONTROLLERS



PROTECTION  
RELAYS



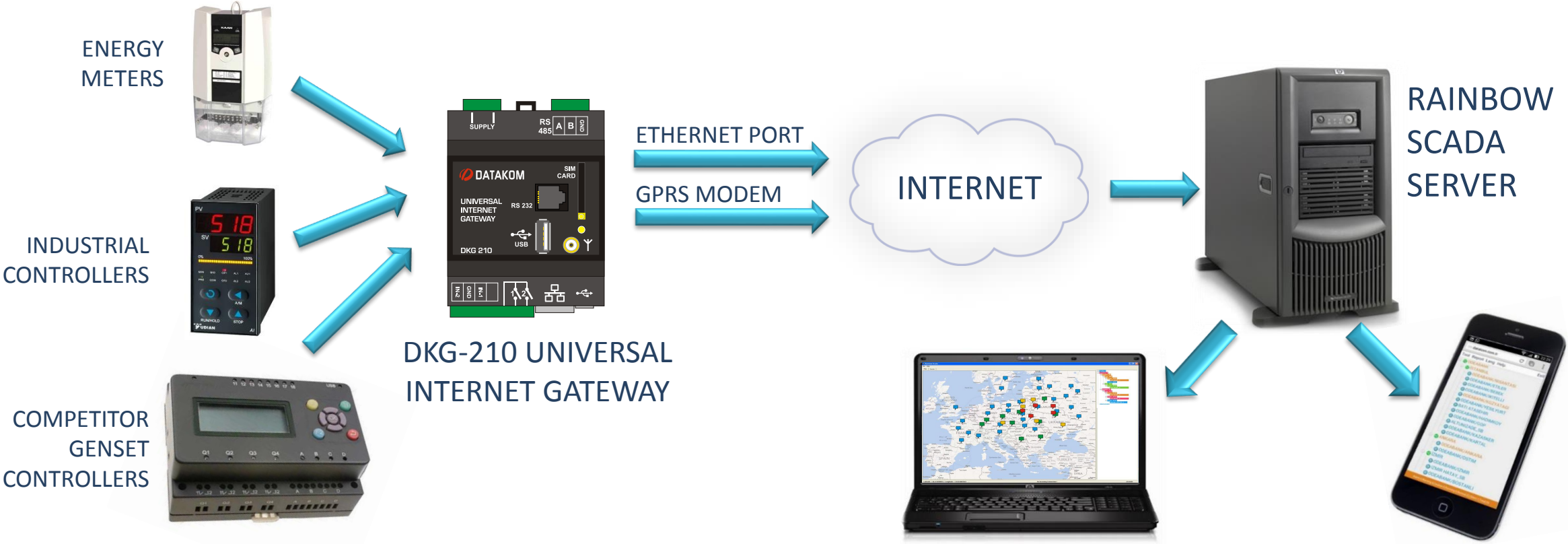
INTERNET

RAINBOW  
SCADA  
SERVER



# INTEGRAL APPROACH

## MONITOR THIRD PARTY & COMPETITOR PRODUCTS





# COST ADVANTAGE

MONITOR YOUR SYSTEM WITH LOWER DATA COST !



CONTROLLER



RAINBOW SCADA  
SERVER

- CONTROLLERS CONNECT AUTOMATICALLY
- NO NEED TO QUERY THE CONTROLLER
- ALL DATA IS SENT IN A SINGLE IP PACKET



# COST ADVANTAGE

EACH CONTROLLER COMES WITH 2 YEARS FREE MONITORING



- 2 YEARS FREE MONITORING
- 6 MONTHS FREE REMOTE CONTROL
- 6 MONTHS FREE REMOTE PARAMETER EDIT
- 6 MONTHS FREE DATA ANALYSIS



# IMMEDIATE FAULT DETECTION

REDUCE CUSTOMER'S DOWN TIME WITH FASTER INTERVENTION



**YES !**



**NO !**

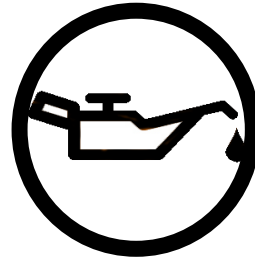


# FAULT SENSING BEFORE FAILURE

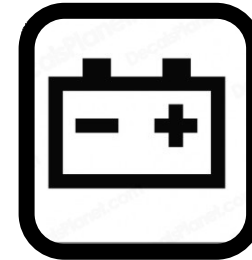
GENERATE ALERTS BEFORE THEY BECOME EMERGENCIES



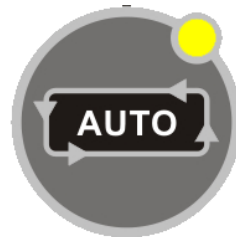
LOW FUEL



LOW OIL



LOW BATTERY



NOT IN AUTO

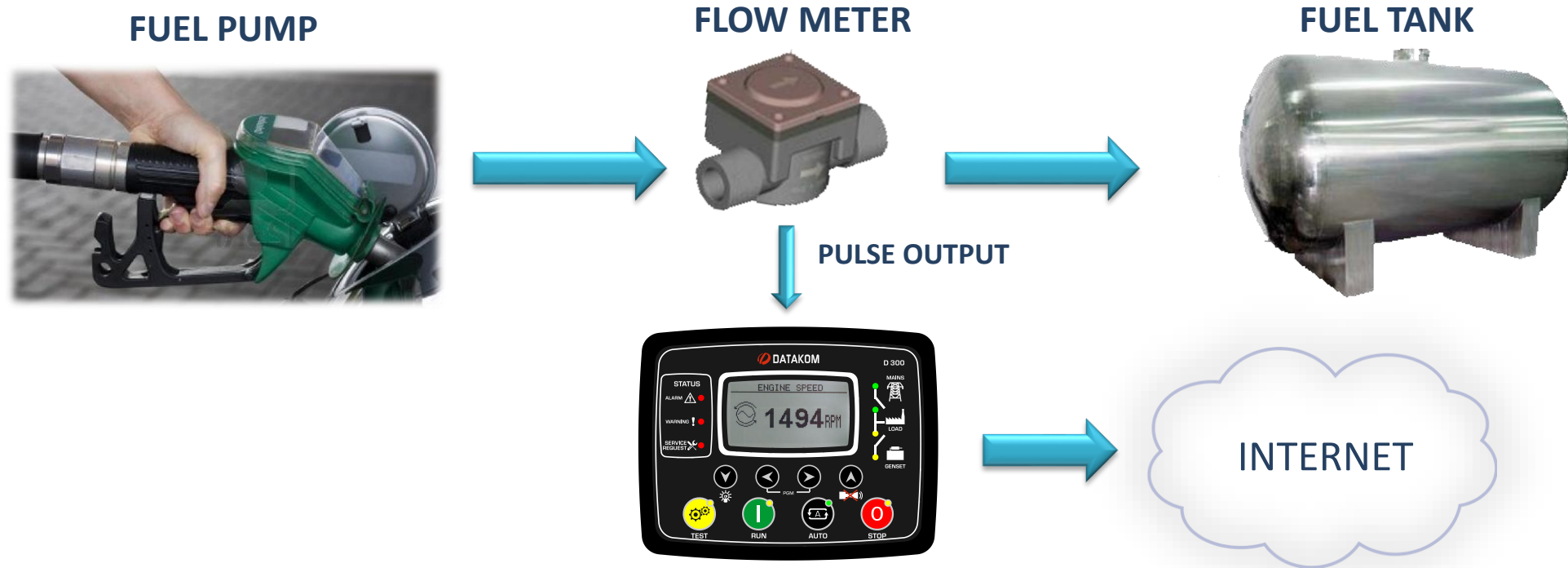


SERVICE REQUEST



# REMOTE FUEL FILLING MONITORING

CONTROLLER COUNTS FLOW METER PULSES

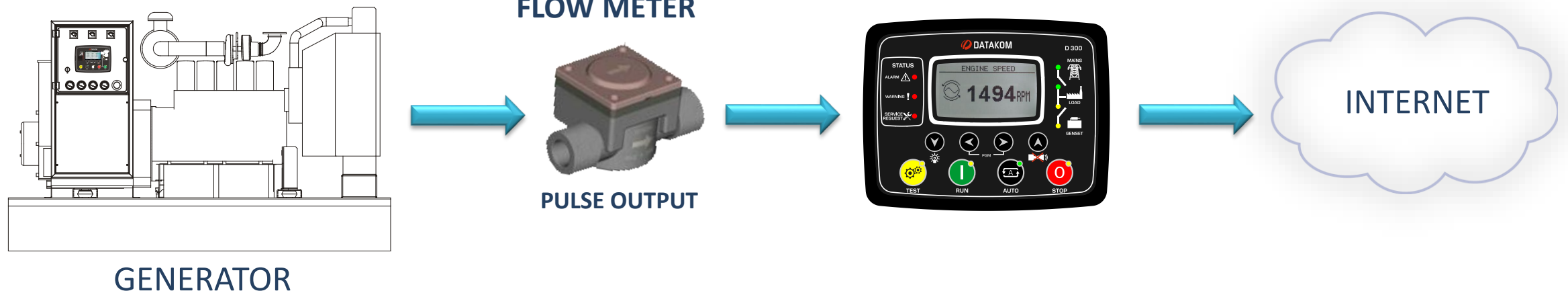


SAVE YOUR MONEY BY ELIMINATING FUEL FILLING FRAUDS !



# FUEL CONSUMPTION MONITORING

CONTROLLER COUNTS FLOW METER PULSES

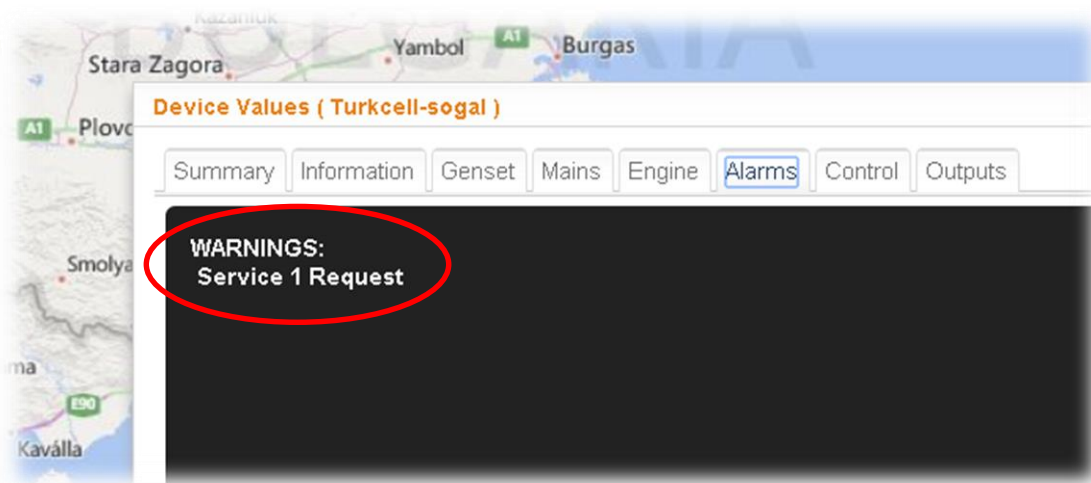
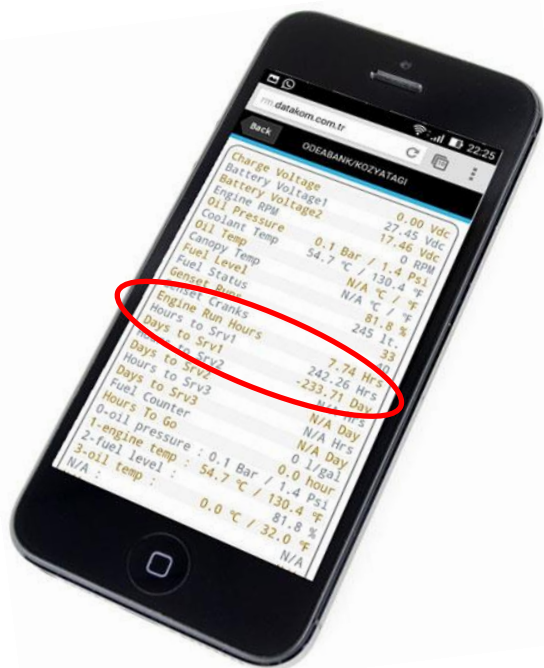


MONITOR YOUR GENSET'S kw/FUEL EFFICIENCY



# REMOTE SERVICE MONITORING

REDUCE YOUR SPARE PARTS COST BY SERVICE PLANNING !



AVOID UNNECESSARY SERVICE VISITS



# LESS MANPOWER FOR SERVICE

AVOID UNNECESSARY SITE VISITS



**NO !**



**YES !**





# ADVANTAGES

- ❑ GENERATE ALERTS BEFORE THEY BECOME EMERGENCIES
- ❑ RESET FAULTS FROM YOUR CONTROL ROOM
- ❑ TEST YOUR GENSET FROM YOUR CONTROL ROOM
- ❑ REDUCE YOUR DOWN TIME WITH FASTER INTERVENTION
- ❑ AVIOD UNNECESSARY SITE VISITS
- ❑ REDUCE YOUR SPARE PART COST BY SERVICE PLANNING
- ❑ ELIMINATE FUEL THEFT
- ❑ ELIMINATE ENERGY THEFT
- ❑ ELIMINATE FUEL FILLING FRAUDS
- ❑ HAVE YOUR CRITICAL SITE ALWAYS UP
- ❑ HAVE DATA SECURITY
- ❑ INTEGRATE THIRD PARTY PRODUCTS IN THE SAME NETWORK
- ❑ CONTROL YOUR ENTIRE REMOTE STATION VIA D-300

