

D-500

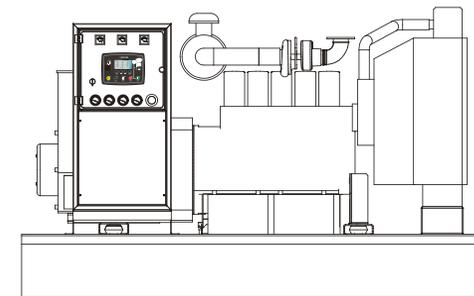
INTERNET ENABLED GENSET CONTROLLER

MULTIFUNCTIONAL

THE SAME UNIT IS A ...



- AMF UNIT WITH UNINTERRUPTED TRANSFER
- ATS CONTROLLER
- REMOTE START CONTROLLER
- ENGINE CONTROLLER
- REMOTE DISPLAY UNIT

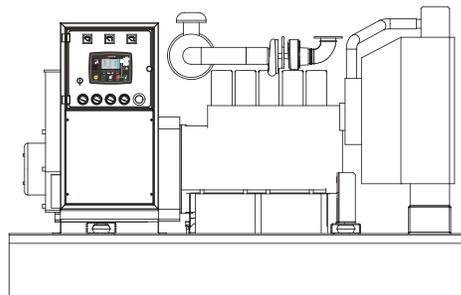


REDUCE YOUR STOCK ITEMS !

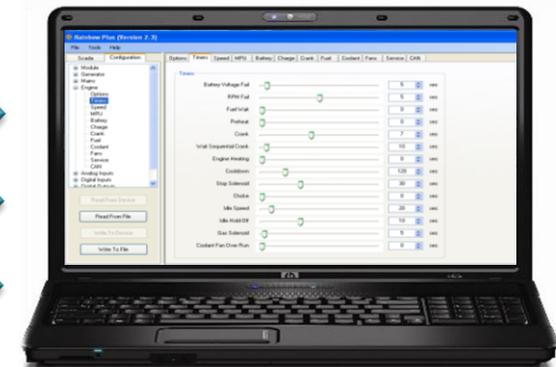


EASY PROGRAMMING

- ❑ EASY TO USE PC CONFIGURATION PROGRAM: RAINBOW PLUS
- ❑ PC PROGRAM CONNECTS THROUGH USB + RS485 + INTERNET
- ❑ REMOTE PARAMETER SETTING THROUGH INTERNET
- ❑ ALL PARAMETERS FRONT PANEL ADJUSTABLE
- ❑ DETAILED TRAINING MATERIAL



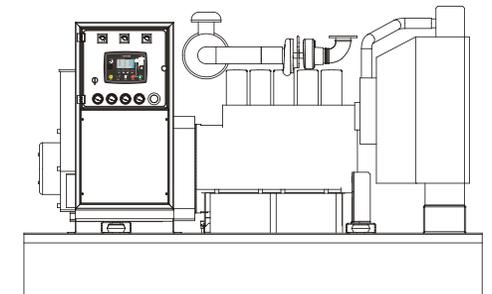
USB
RS-485
INTERNET



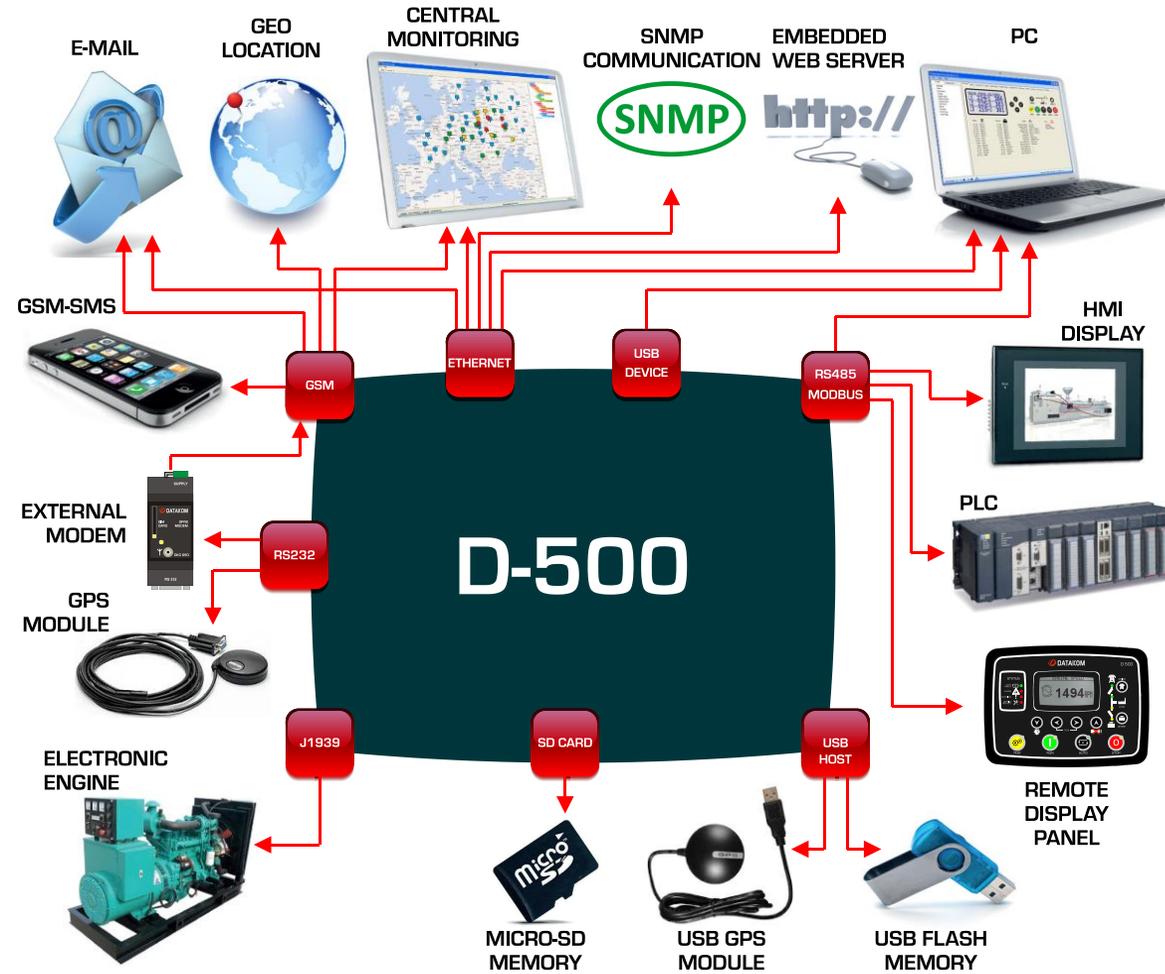
DATA PORTS



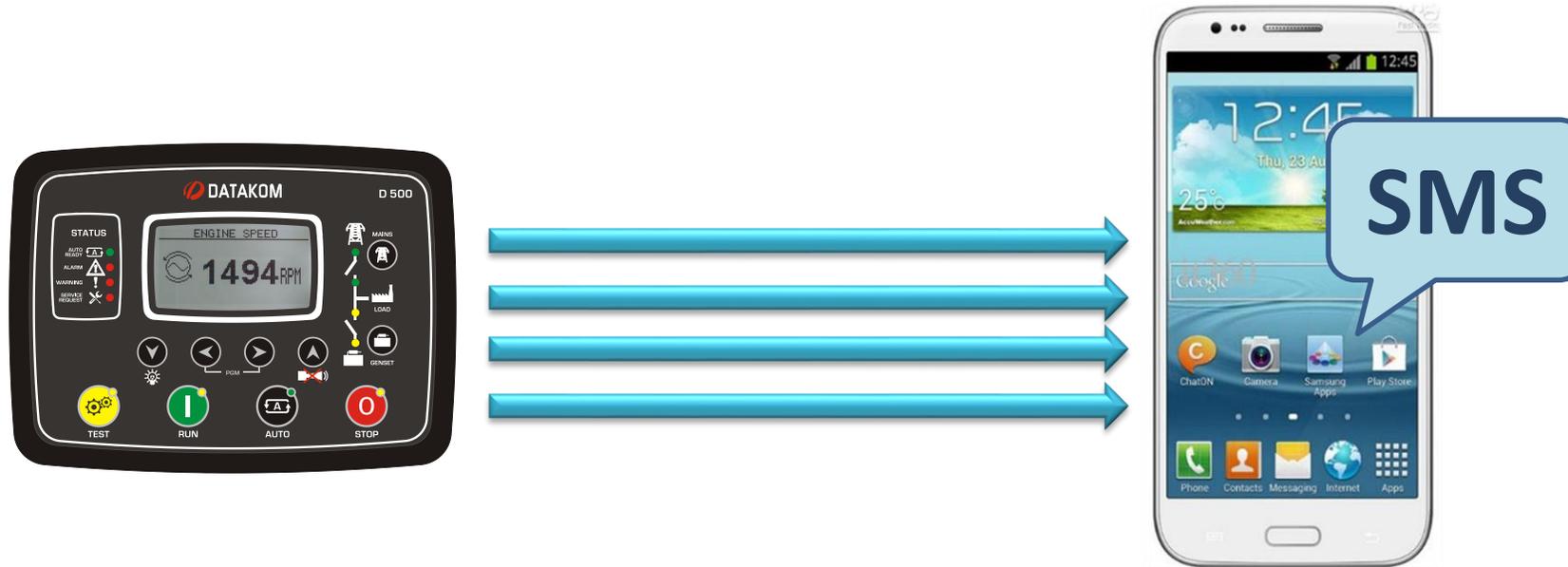
- ETHERNET 10/100 Mb
- INTERNAL GPRS MODEM
- RS-485 (MODBUS RTU)
- RS-232 (EXTERNAL MODEM)
- USB DEVICE (PC CONNECTION)
- USB HOST (LONG TERM DATA RECORDING)
- MICRO-SD CARD (LONG TERM DATA RECORDING)



CONNECTION CAPABILITIES



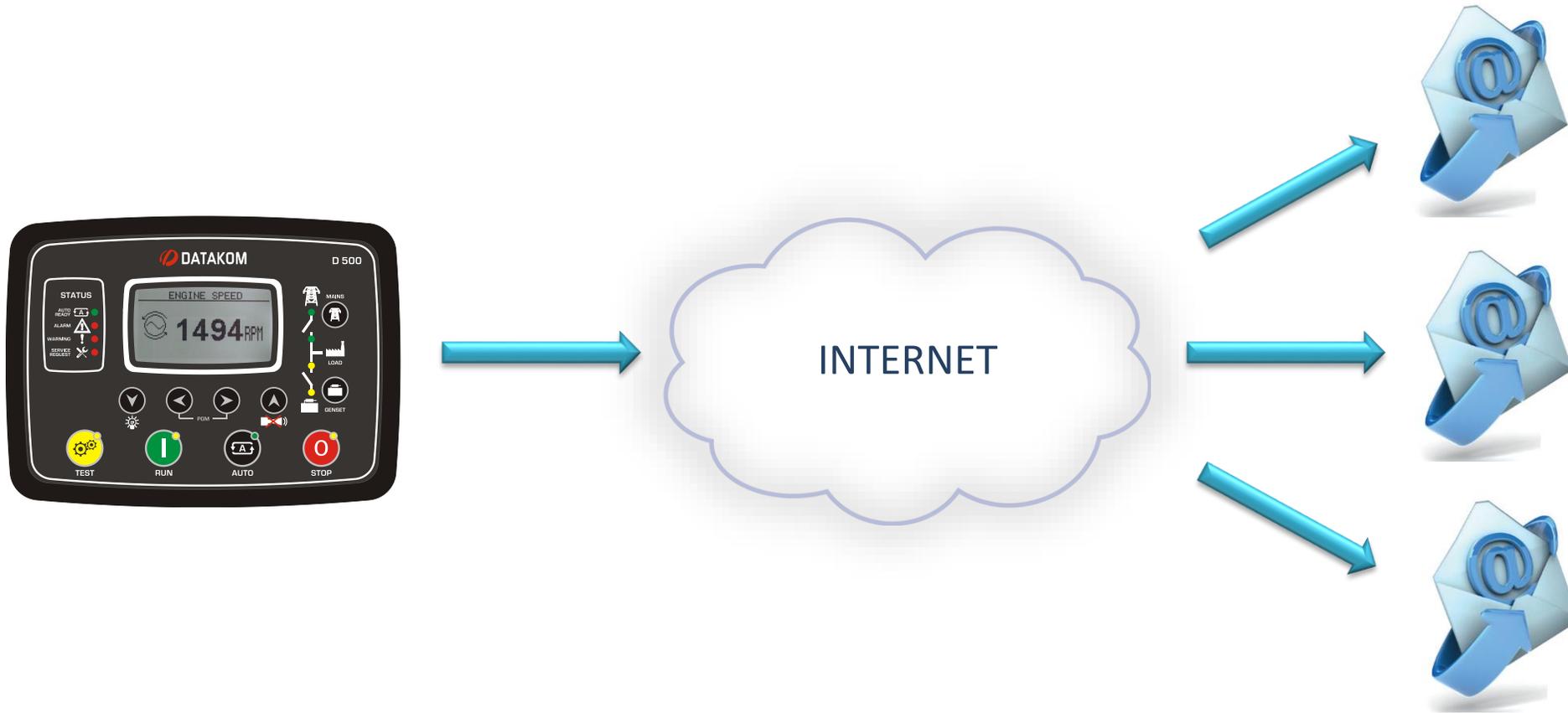
SMS SENDING



UP TO 4 DIFFERENT PHONE NUMBERS ALLOWED



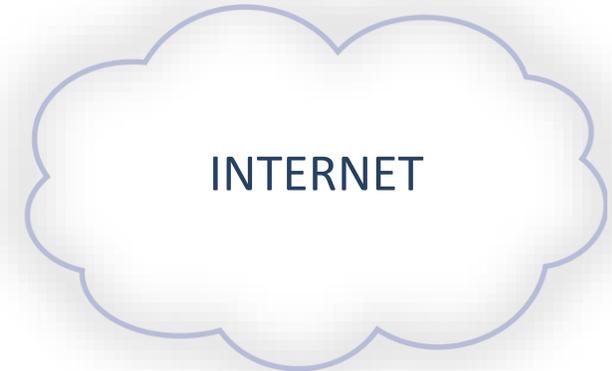
E-MAIL SENDING



UP TO 3 DIFFERENT E-MAIL ADDRESSES ALLOWED



INTERNET FEATURES



- EMBEDDED WEB SERVER
- WEB MONITORING
- WEB PROGRAMMING
- PARAMETER SETTING THROUGH INTERNET
- CENTRAL MONITORING THROUGH INTERNET
- E-MAIL SENDING
- MODBUS TCP/IP
- SNMP

SNMP

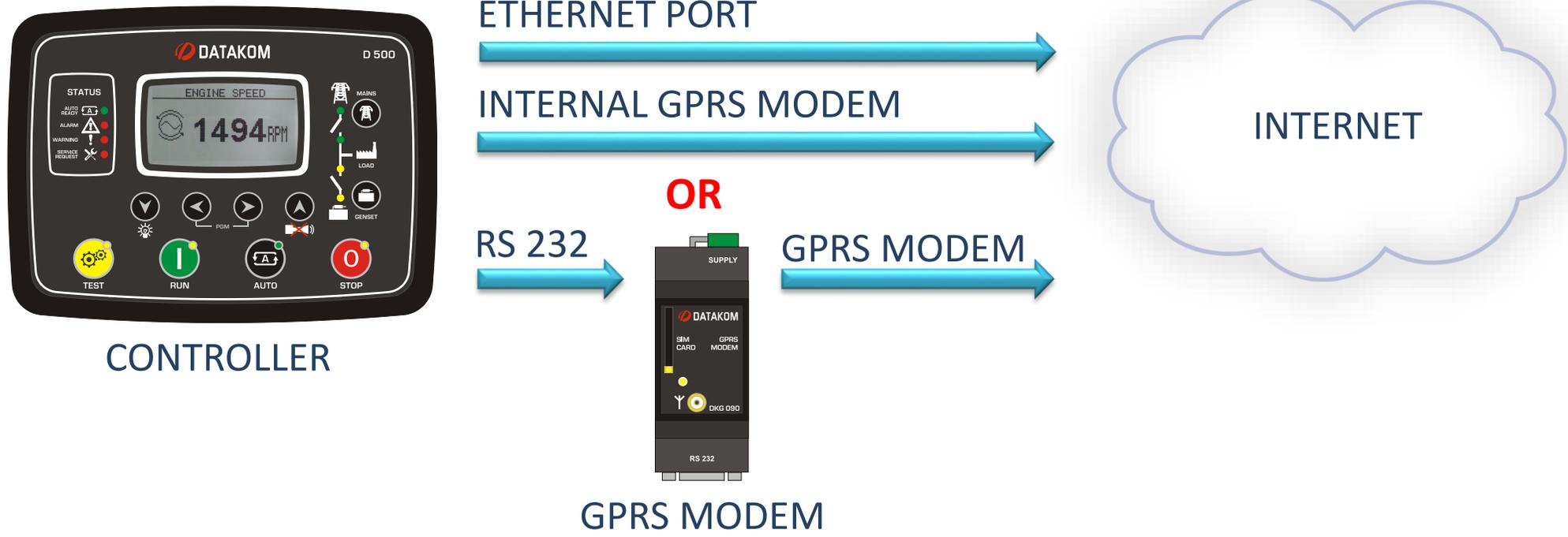


REMOTE MONITORING



INTERNET CONNECTION

LAN + GPRS CONNECTIONS ENABLED !



DUAL CONNECTIONS ALLOWED FOR ADDITIONAL SAFETY

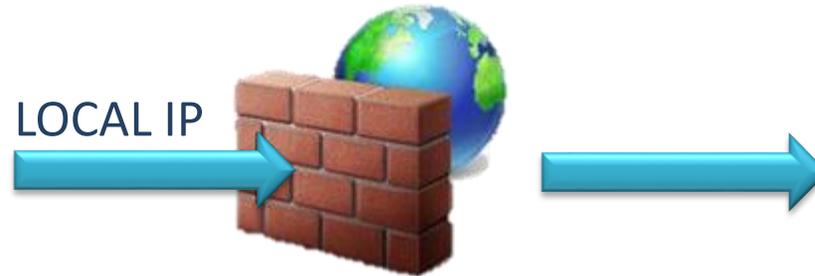


EASY INSTALLATION - ETHERNET

ETHERNET CONNECTION SUPPORTS LAN AND LOCAL IP !



CONTROLLER



FIREWALL



RAINBOW SCADA
SERVER

- NO STATIC IP REQUIRED
- NO PORT REDIRECTION REQUIRED
- NO DATA SERVER REQUIRED
- JUST PLUG & PLAY



EASY INSTALLATION - GPRS

GPRS CONNECTION SUPPORTS DYNAMIC IP AND LOCAL IP !



CONTROLLER

GPRS MODEM

RS 232



DKG 090

GPRS MODEM



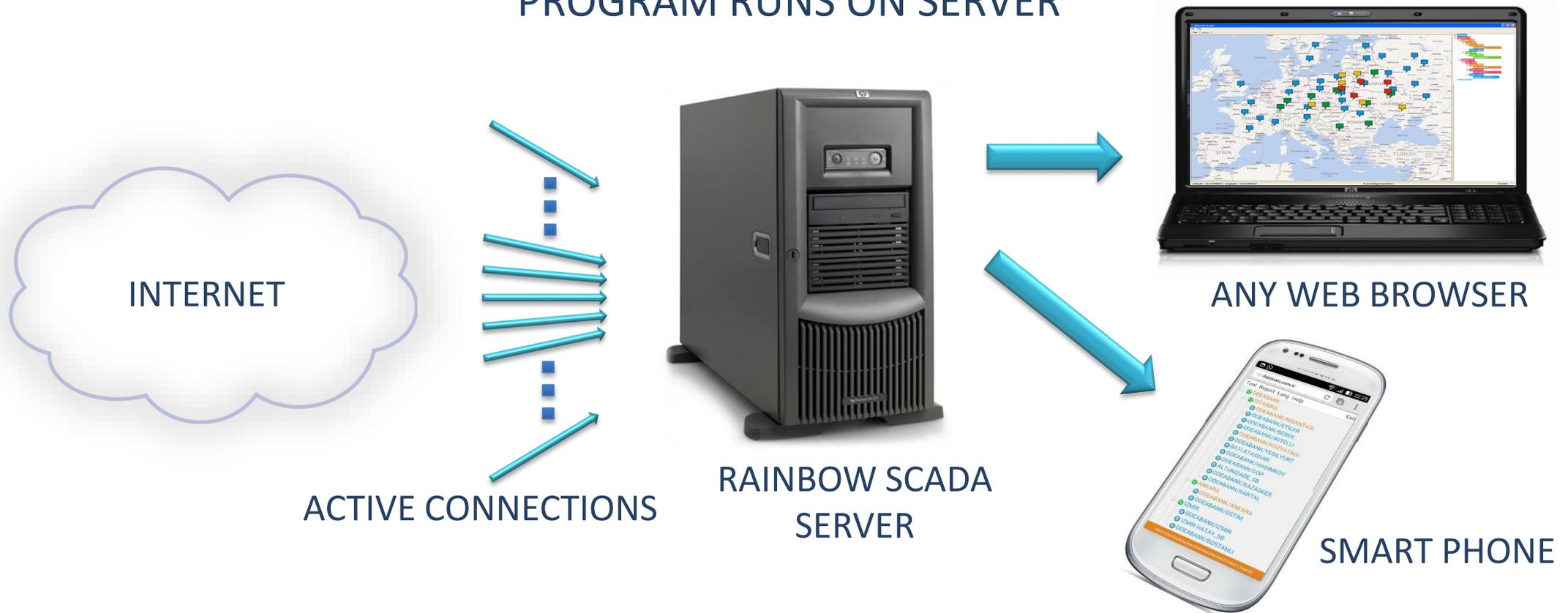
RAINBOW SCADA
SERVER

- 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

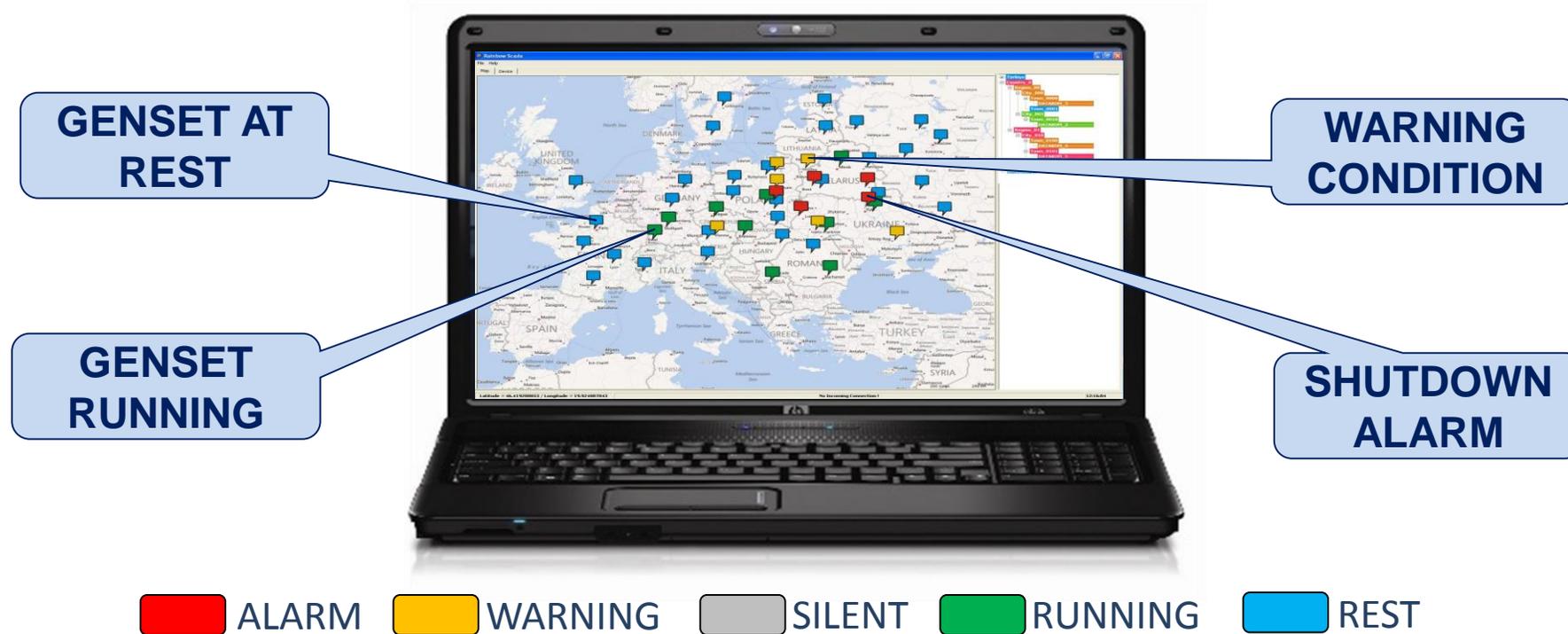


RAINBOW SCADA SERVER SUPPORTS 60'000 ACTIVE CONNECTIONS



CHART MODE DISPLAY

MONITOR YOUR COMPLETE FLEET ON ONE SCREEN

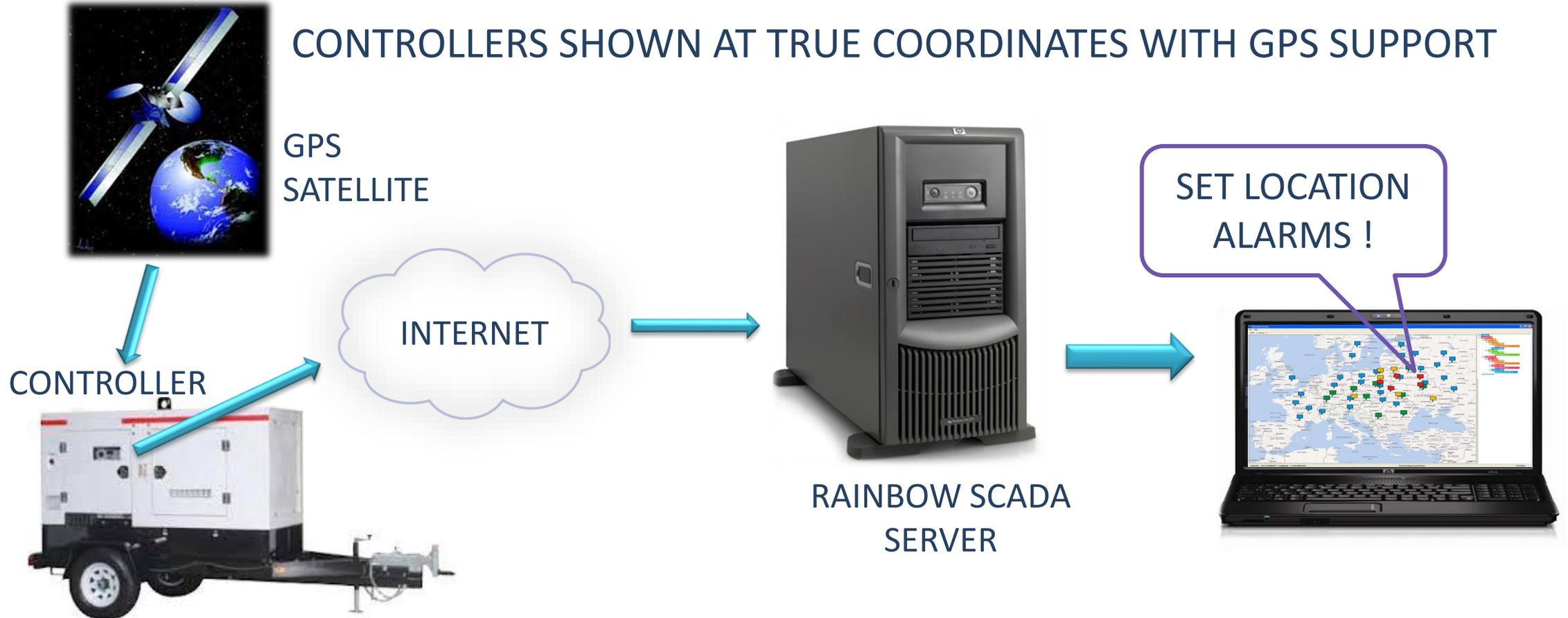


THE COLOUR OF THE BOX SHOWS DEVICE STATUS !



MOBILE GENSET SUPPORT

CONTROLLERS SHOWN AT TRUE COORDINATES WITH GPS SUPPORT

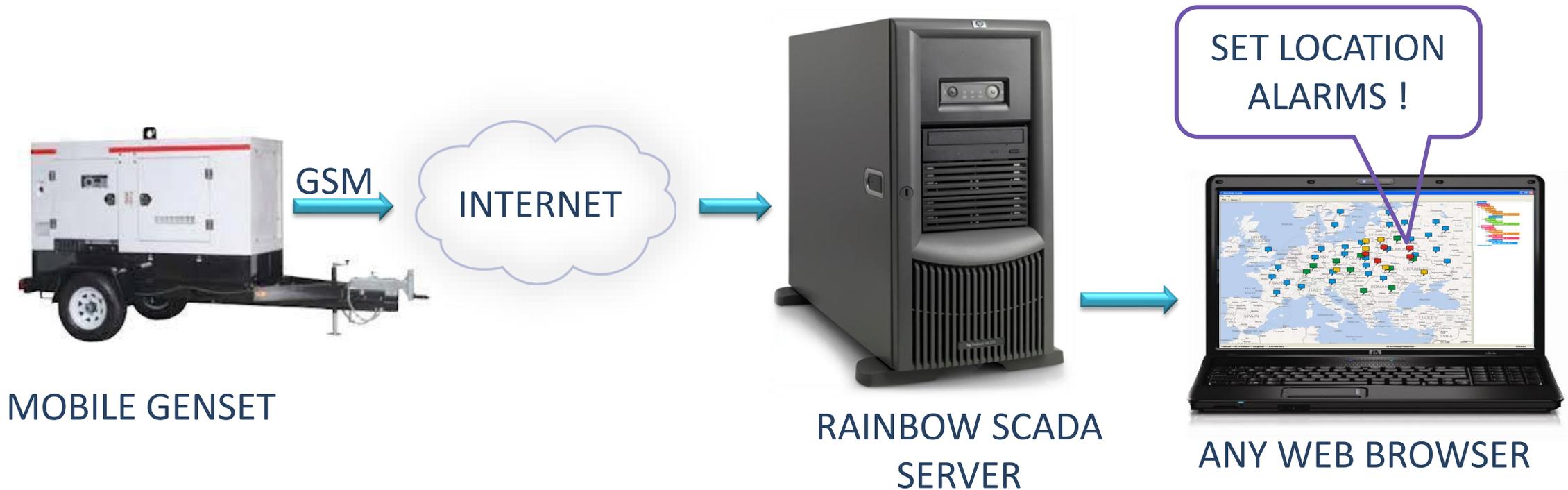


MONITOR YOUR MOBILE FLEET ON-LINE !



MOBILE GENSET SUPPORT

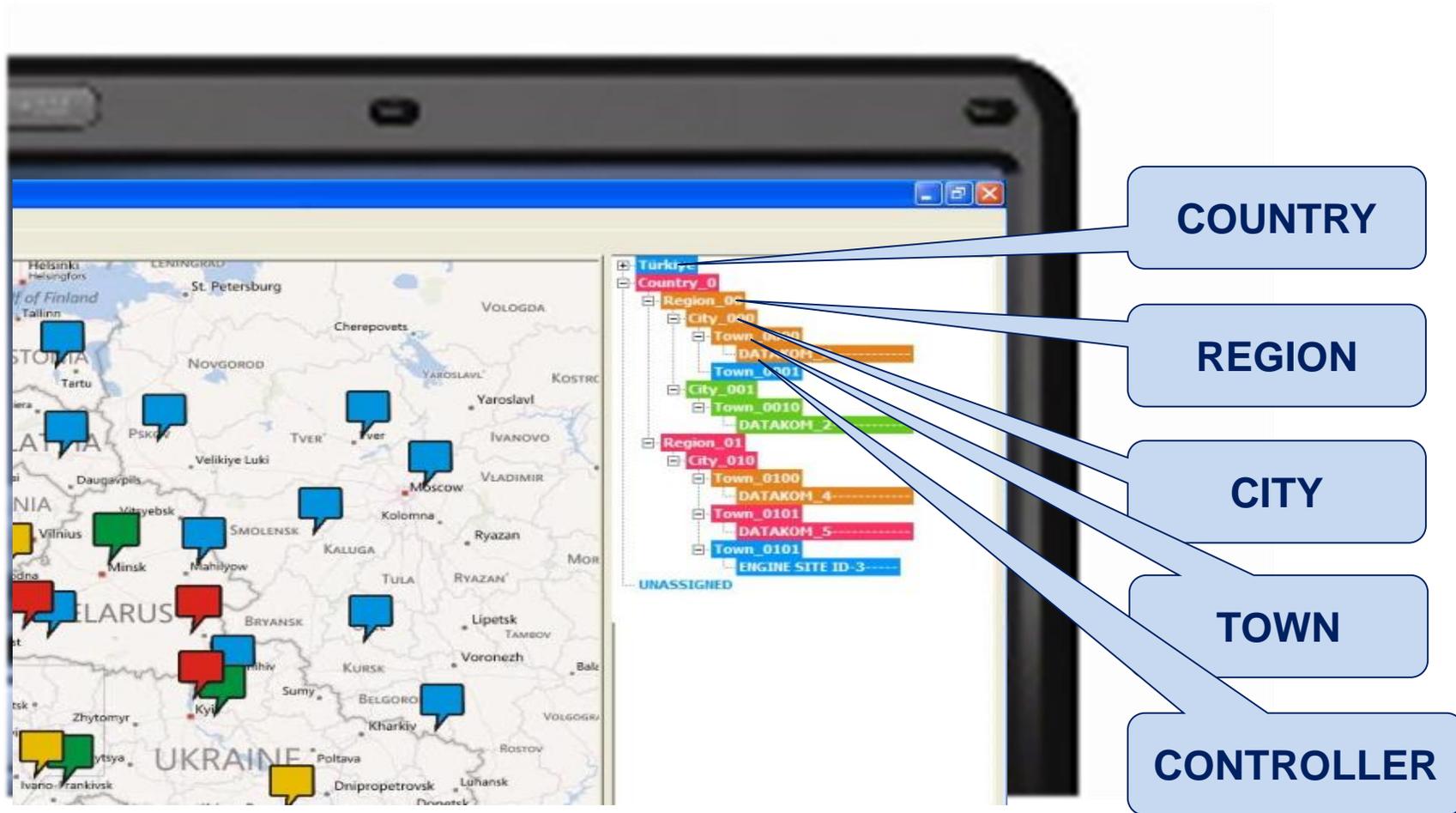
LOCATION DETERMINATION OVER GSM NETWORK



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



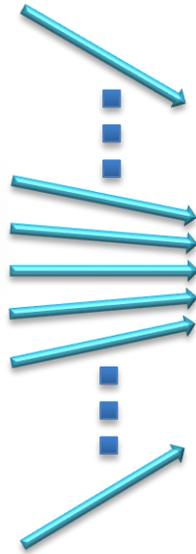
RAINBOW SCADA
MANAGING SCREEN

NO NEED TO WAIT FOR SUPPORT



CREATE YOUR OWN SUB_USERS

RAINBOW SCADA SERVER

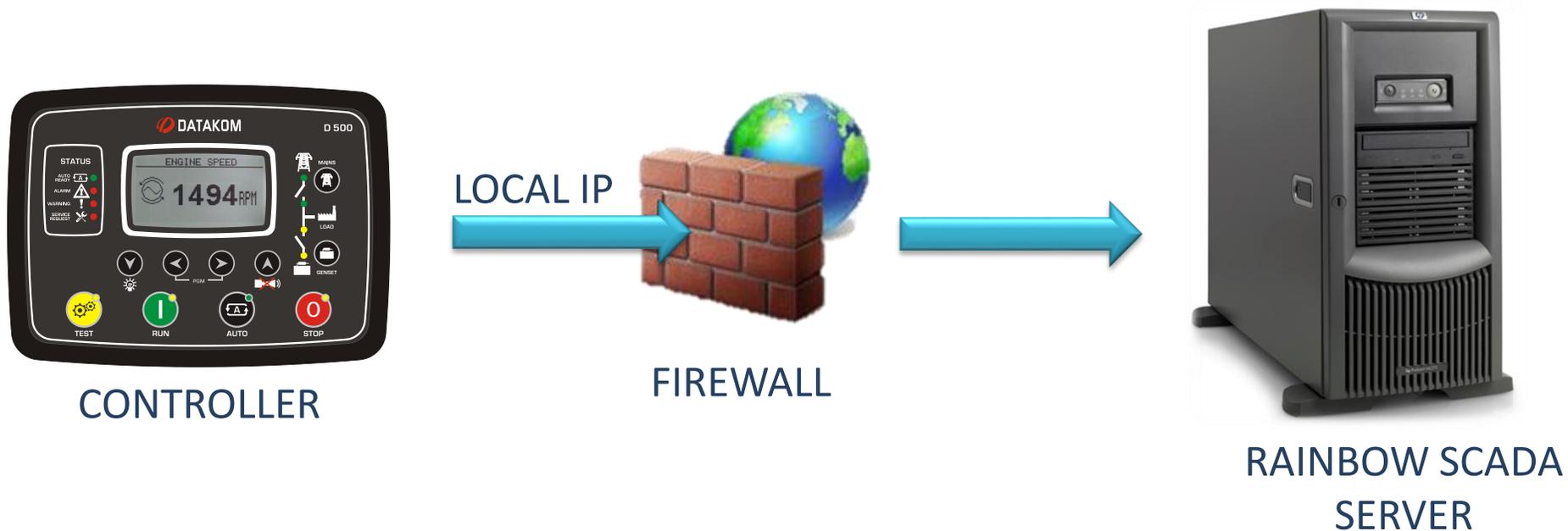


RESELL YOUR DATA AND HAVE REVENUE !



DATA SECURITY

DATA IS SENT TO RAINBOW SCADA SERVER ONLY !

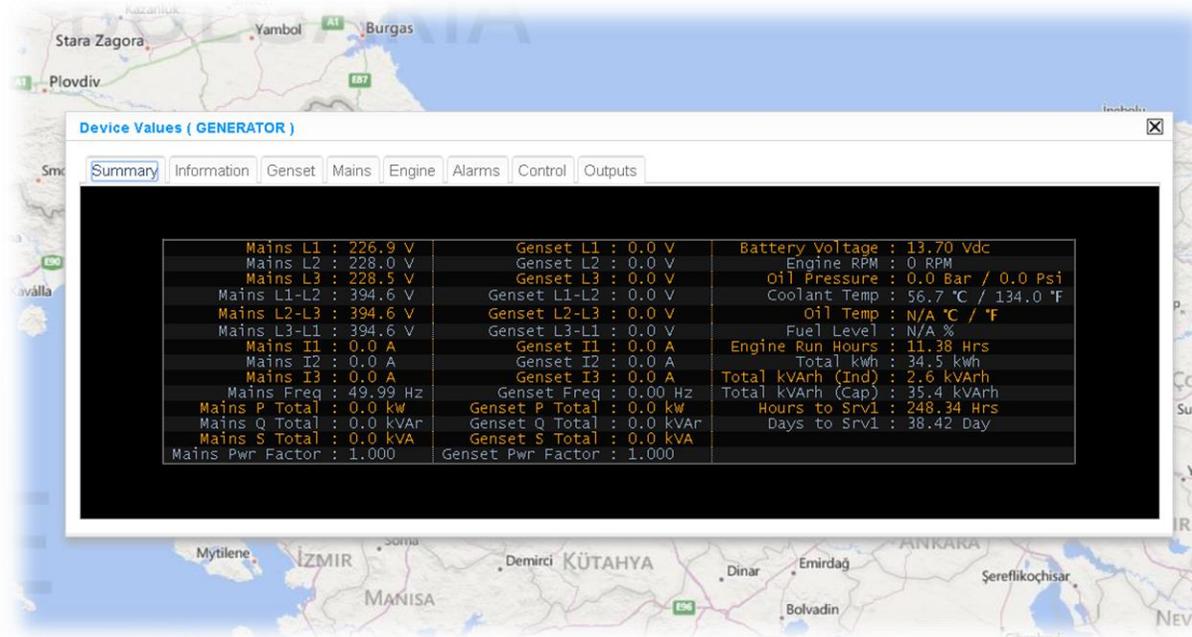


NOBODY CAN REACH YOUR CONTROLLER !



DETAIL MONITORING

MONITOR ONLINE & REAL TIME

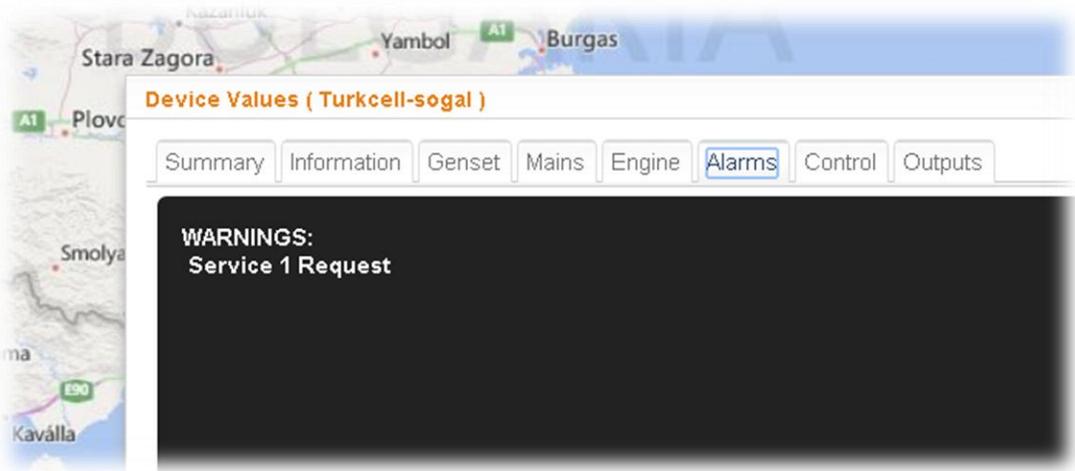


MONITOR WITH PC, TABLET OR SMARTPHONE



REMOTE ALARM MONITORING

MONITOR ONLINE & REAL TIME

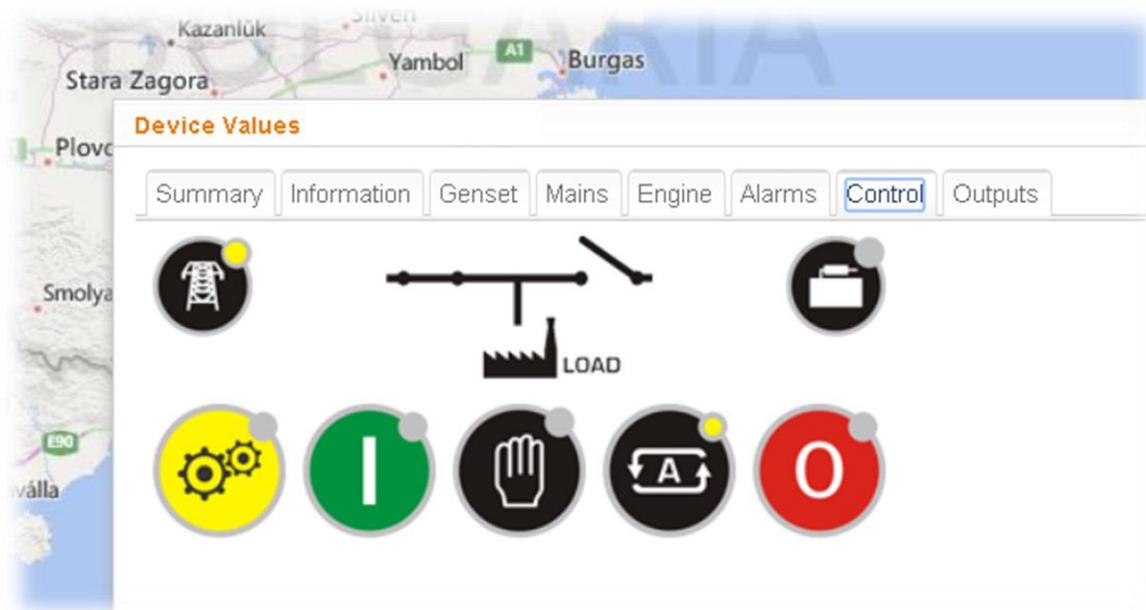


MONITOR WITH PC, TABLET OR SMARTPHONE



REMOTE CONTROL & REMOTE FAULT RESET

RESET ALARMS ONLINE & REAL TIME

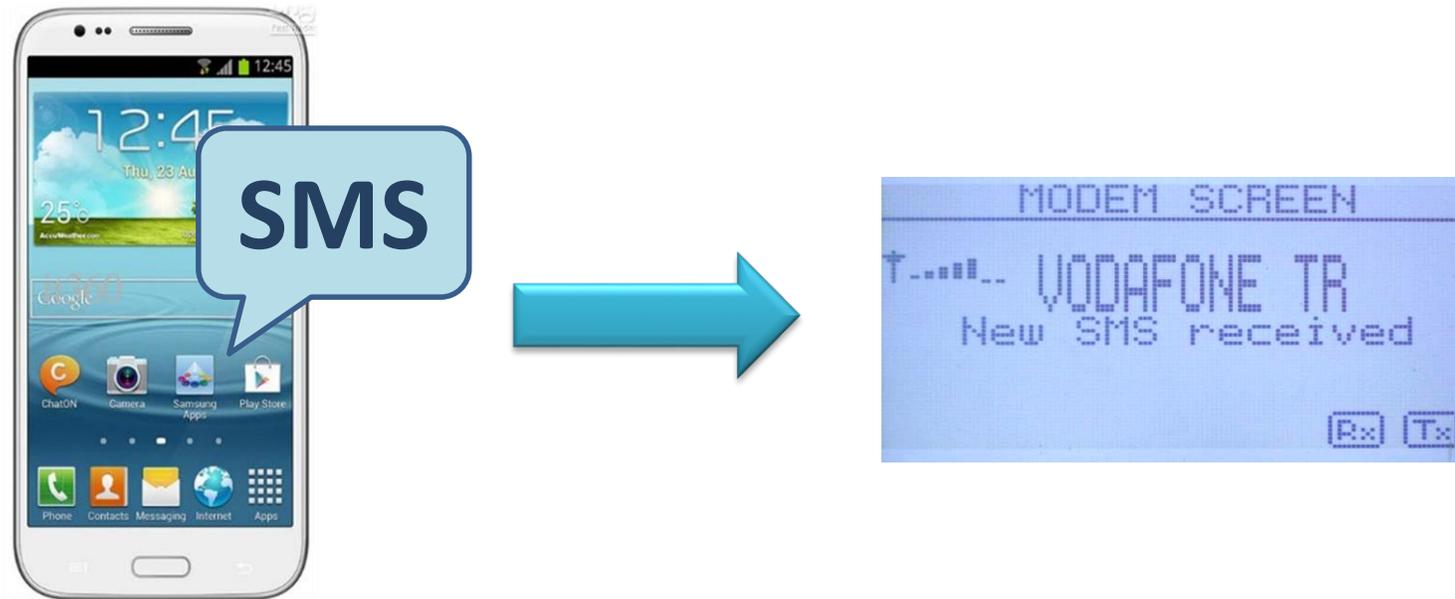


RESET ALARMS WITH PC, TABLET OR SMARTPHONE



REMOTE FAULT RESET VIA SMS

YOUR CRITICAL SITE IS ALWAYS UP !



RESET ALARMS !



REMOTE PARAMETER EDIT

CONTROLLER



RAINBOW PLUS PROGRAM



RAINBOW SCADA SERVER

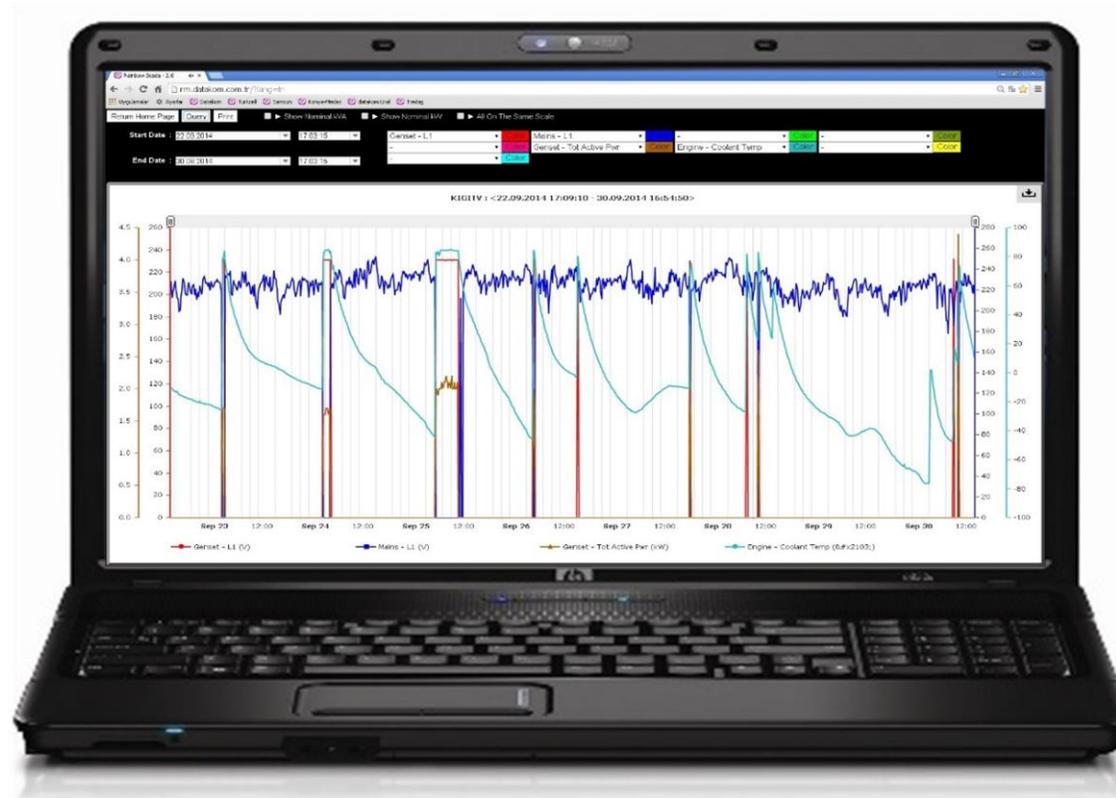


SAVE TIME AND SERVICE COST



DATA ANALYSIS

PAST DATA IS STORED ON SERVER !



DATA CAN BE SAVED AS:

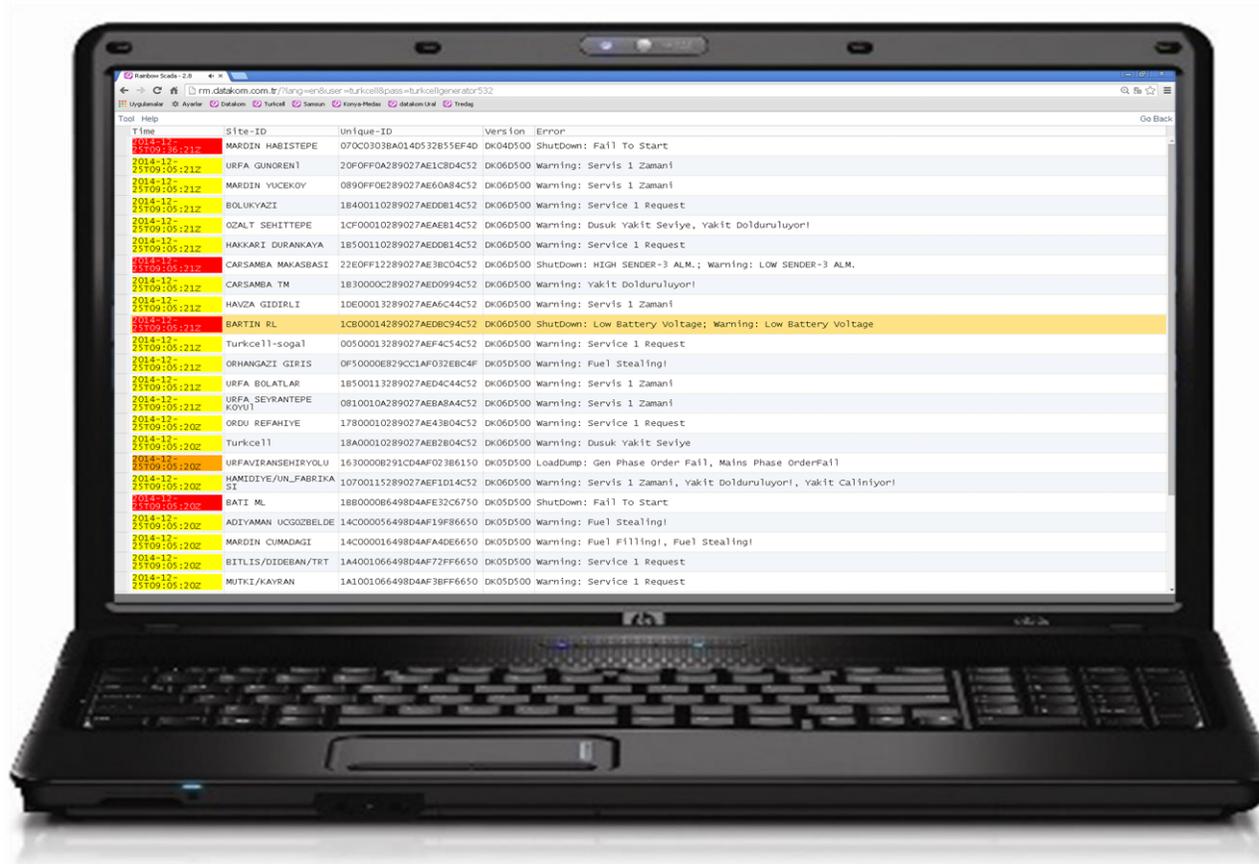
- **JPG FILES**
- **EXCEL FILES**

ANALYSE PAST PERFORMANCE OF YOUR SYSTEM !



ONLINE ALARM MANAGEMENT

DESIGNED FOR CONTROL CENTERS

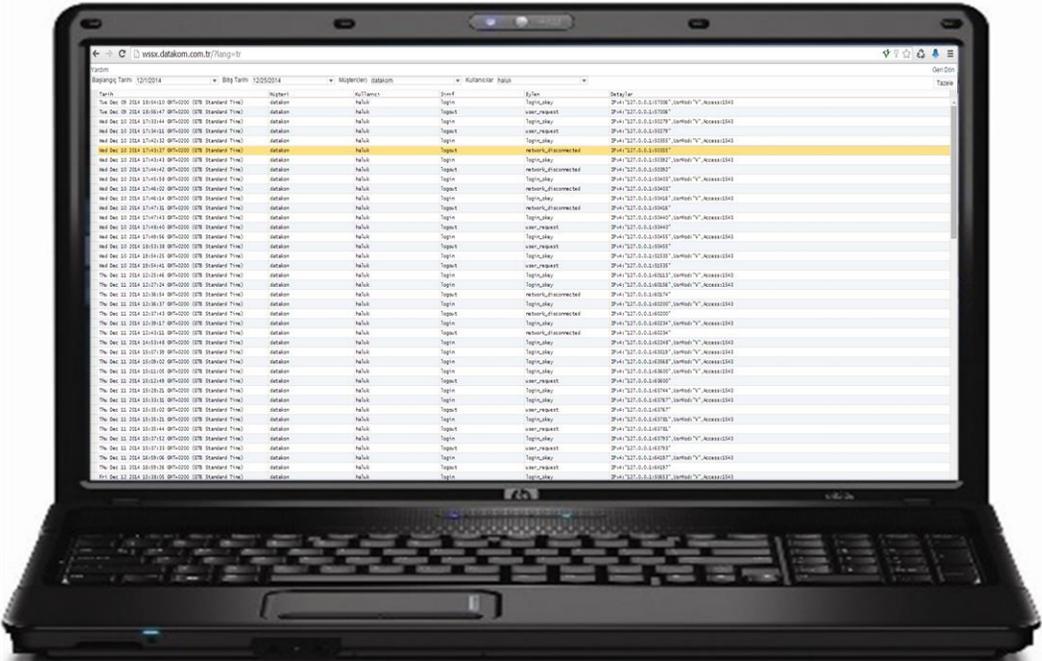


ALARM HISTORY IS RECORDED INTO DATABASE



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

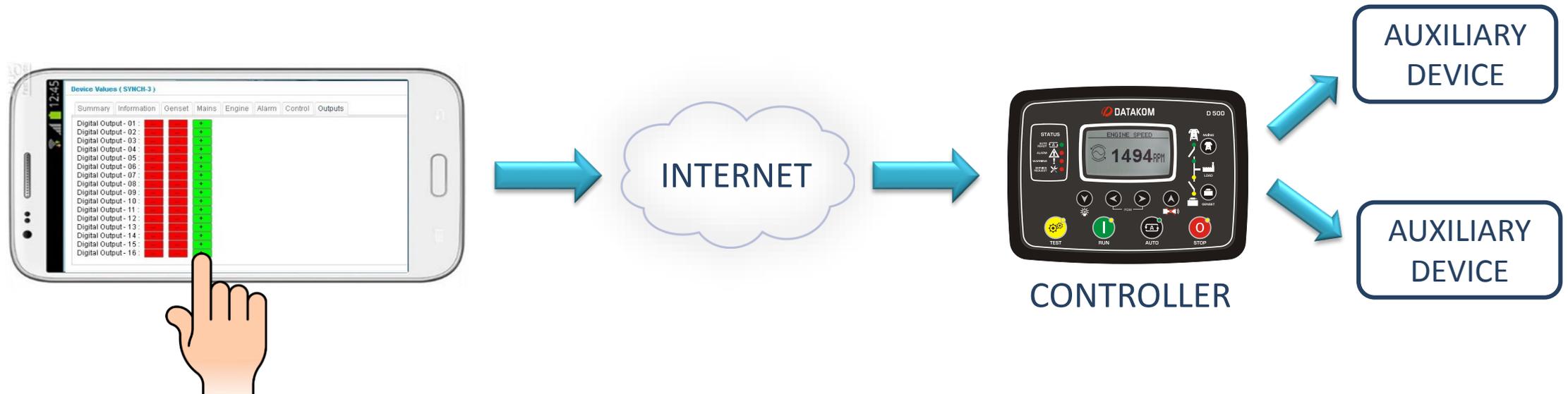


- FUEL CONSUMPTION REPORTS
- kW/fuel EFFICIENCY REPORTS
- POWER GENERATION REPORTS
- POWER CONSUMPTION REPORTS
- AVERAGE VALUES
- MIN-MAX VALUES

PROVIDES HELP FOR BETTER MANAGEABILITY OF YOUR FLEET !



REMOTE CONTROL OF AUXILIARY DEVICES

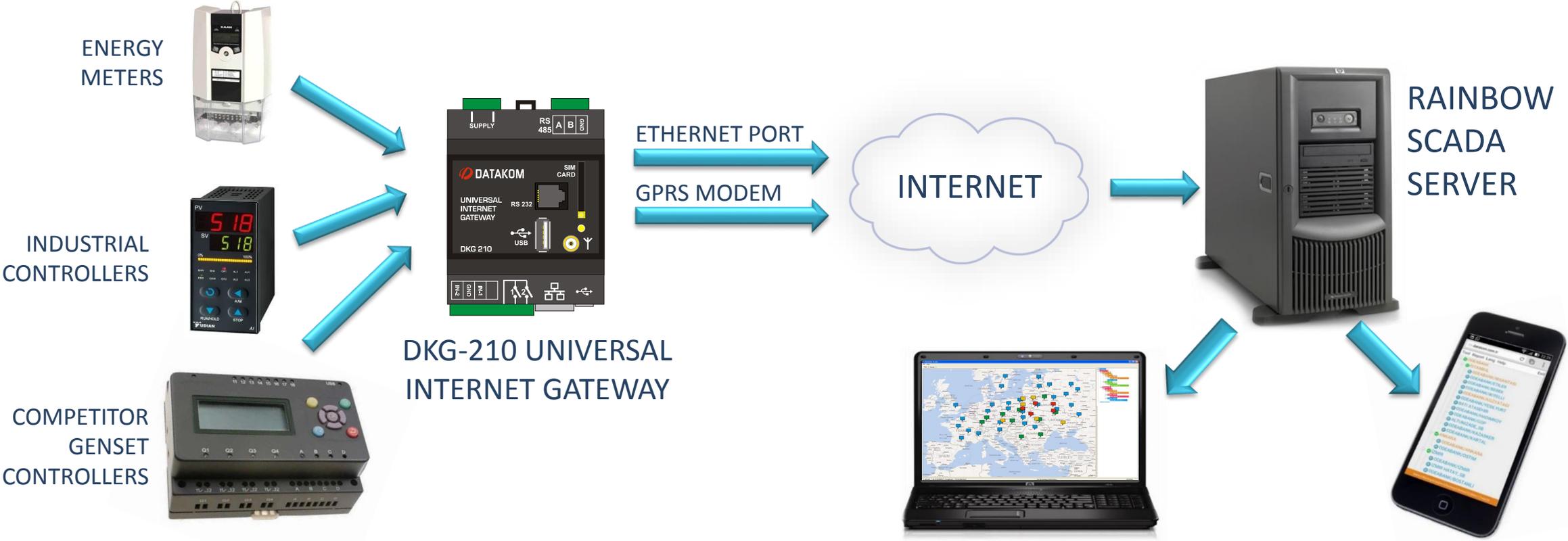


MONITOR ALL DATAKOM PRODUCTS



INTEGRAL APPROACH

MONITOR THIRD PARTY & COMPETITOR PRODUCTS



COST ADVANTAGE

MONITOR YOUR SYSTEM WITH LOWER DATA COST !



CONTROLLER



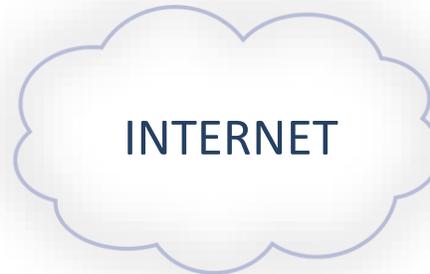
RAINBOW SCADA
SERVER

- 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 !

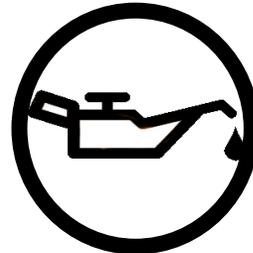


FAULT SENSING BEFORE FAILURE

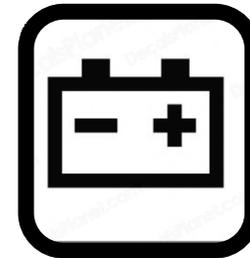
GENERATE ALERTS BEFORE THEY BECOME EMERGENCIES



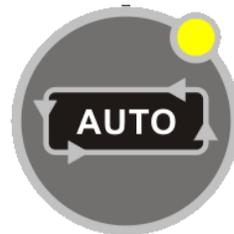
LOW FUEL



LOW OIL



LOW BATTERY



NOT IN AUTO

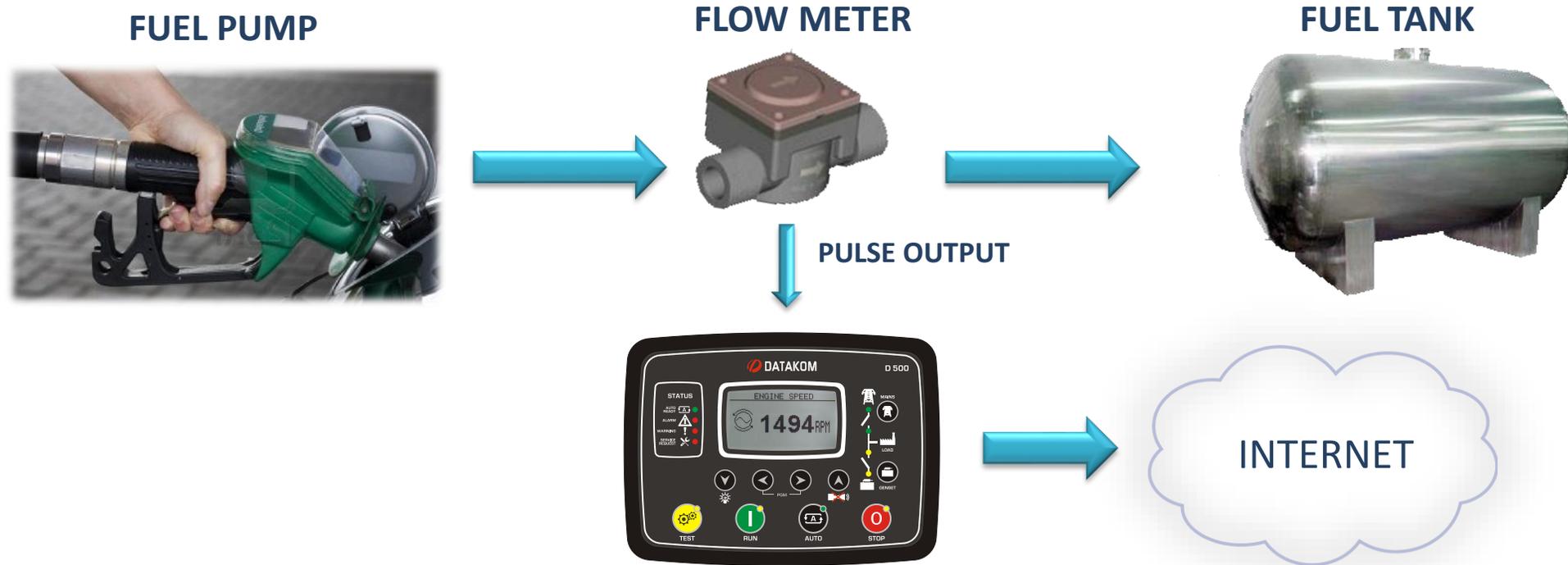


SERVICE REQUEST



REMOTE FUEL FILLING MONITORING

CONTROLLER COUNTS FLOW METER PULSES

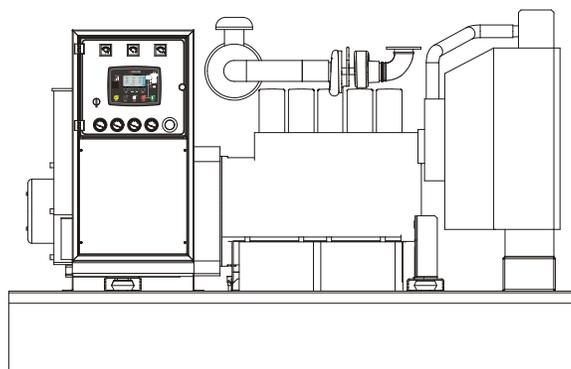


SAVE YOUR MONEY BY ELIMINATING FUEL FILLING FRAUDS !



FUEL CONSUMPTION MONITORING

CONTROLLER COUNTS FLOW METER PULSES



GENERATOR

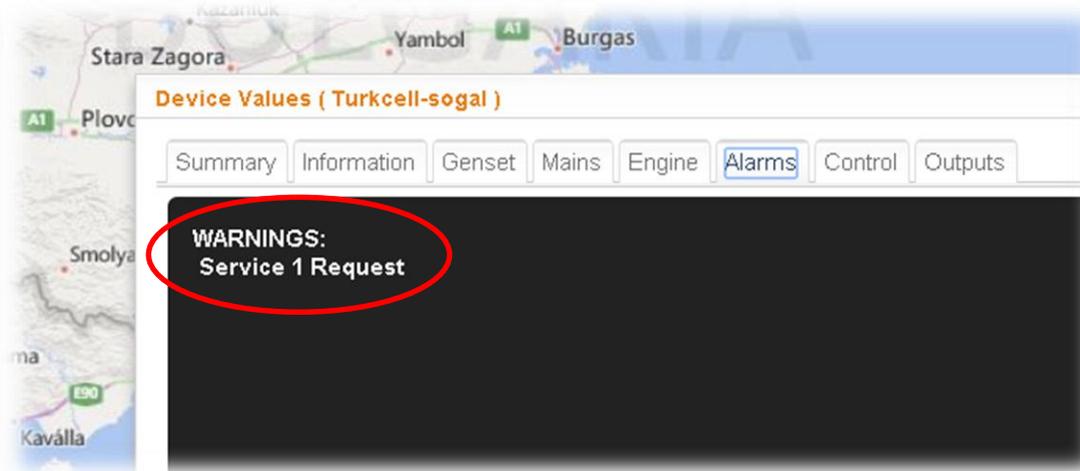
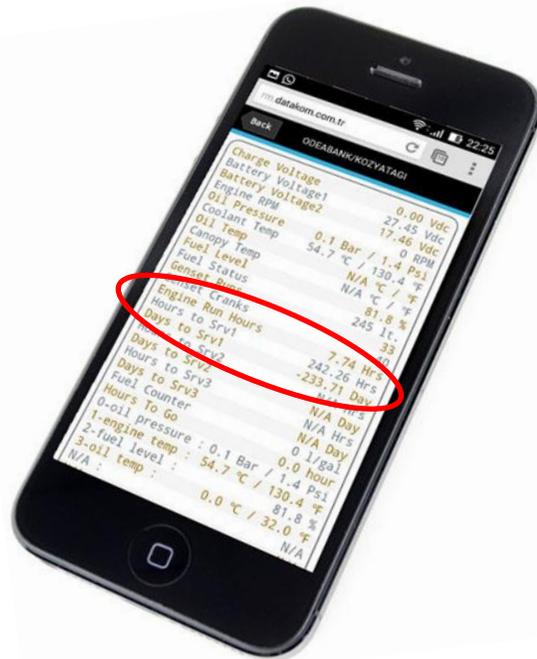


MONITOR YOUR GENSET'S kw/FUEL EFFICIENCY



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-500

