

SPARK[®] UPS CONTROL AND MANAGEMENT SYSTEM

WORLDWIDE CONTROL FOR UPS



Features

- ❑ Efficient communication with all UPS devices in customer network
- ❑ Centralized management and control
- ❑ Informing the user on critical condition of UPS through SMS message
- ❑ Connecting to unlimited number of UPSs
- ❑ Linking with any UPS regardless of its location.
- ❑ Passwords and commands to terminals are protected by SSL encryption
- ❑ Constant connection of computer or other control unit with all controlled devices
- ❑ The possibilities of access by using any PC or PDA connected on Internet or by mobile phone which has GPRS and wap browser
- ❑ Communication with the devices located in the whole area covered by the mobile operator
- ❑ Minimal using costs – The costs of data transfer is proportional to quantity of transferred data, not to time spent on transfer.

Introduction

UPS Control and Management System is designed to provide remote management and control of UPS devices world wide. Using it customer can monitor all data which are important for accurate operation of UPSs and undertake a corrective command if function of UPS is irregular. System is based on a quad band Geneko Spark GPRS terminal, type GP, which enables that data transfer to be accomplished over GSM network using GPRS service. User has ability to send commands from web or wap page to GPRS terminal connected with UPS. Due to this, customer can remotely control and monitor device using PC or PDA Internet browser or mobile phone GPRS and wap browsers. PC, PDA and mobile phones should not have any client software, web i.e. wap browser are enough. Web server is able to recognize from which device it is approached and to send back, after data processing, an adequate dynamic created WML page i.e. HTML page.

Function manner

The user controls UPS operation by monitoring the values of UPS parameters and by sending management instructions. Critical values of the parameters (for example, min. and max. voltage, max. loading, main line voltage fail, low battery voltage...) are determined by the user himself. GPRS terminal connected to UPS device monitors regularly the parameters status and in case of their irregular values informs the server accordingly, and send promptly an SMS message to the user. This enables the user to take necessary steps immediately and to define adequate commands to UPS through Internet, for example "shutdown" or "turn on bypass". In the terminal itself log-file is registered non-stop with read values of the parameters that are recorded both in extreme situations and in regular intervals, defined by the user. On the user's request, this log-file is sent in XML form. For models of UPS, which have log inside UPS, it is possible to read that log directly from web or wap browser.

System architecture

Java Server

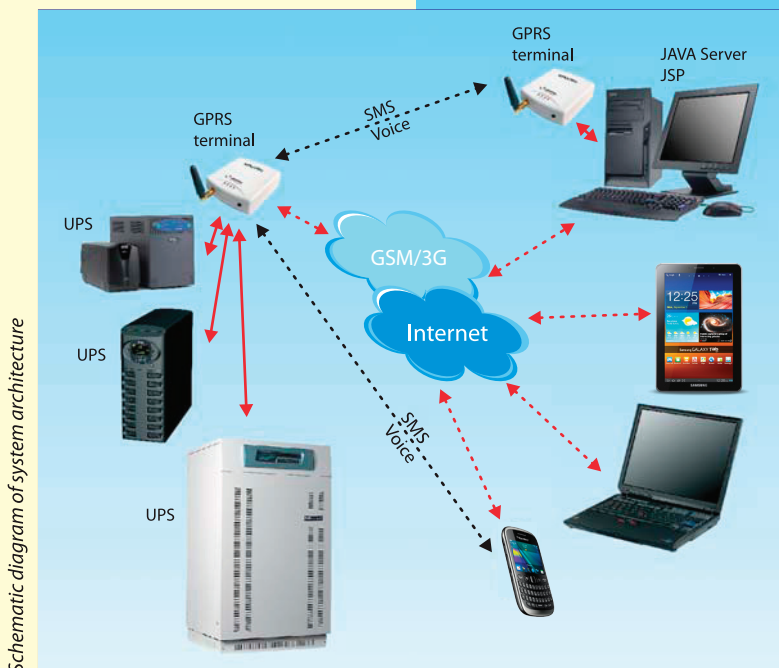
- ❑ Application is executed on server PC
- ❑ Receives connections from GPRS Terminal Spark

JSP WEB application

- ❑ Connected to database from which it takes data
- ❑ Dynamically creates adequate web pages
- ❑ Ensures graphical data display within dynamic graphical drawing
- ❑ It can turn off UPS or turn on by-pass.
- ❑ Administrator can give to the terminal operation parameters
- ❑ Administrator can read log file in XML format from the terminal
- ❑ Support for WAP

UPS Controller GPRS

- ❑ Application in GPRS terminal Geneko SPARK connected UPS
- ❑ Monitors UPS devices
- ❑ All read parameters are registered in log file on the terminal itself
- ❑ The communication is done through GPRS, by XML message format.
- ❑ In extreme situations the terminal sends adequate SMS warning



Schematic diagram of system architecture