

WEBEngine

***The first
WEB, WAP & SMS
server for remote
control and M2M
applications***



Home and Industrial Automation Systems can have great benefits from Internet technology and wireless networking over GSM/GPRS, opening new scenarios in remote control and remote diagnostic applications. Through embedded WEB/WAP servers homes, buildings, industrial plants and machinery can be accessed from any browser and from any place in the world.

NETHIX WEB-Engine is a single-board WEB, WAP & SMS server, equipped with an onboard dual band GSM modem for direct connection to the GSM network, targeted to system integrators, software developers and home or industrial automation systems manufacturers.

WEB-Engine lets end users monitor and control remote devices using:

- a Personal Computer connected to Internet with a standard WEB browser,
- a Personal Computer directly connected to the WEB-Engine through a wireless GSM modem and a standard WEB browser, without internet network infrastructure involved,
- the WAP browser of any GSM WAP mobile phone, or
- any GSM mobile phone using SMS messages.

WEB-Engine is a plug & play solution to provide INTERNET & WAP connectivity and remote management possibilities in M2M (machine to machine) applications and home/industrial automation systems. It is equipped with a standard RS232 and a RS485 serial port and several I/O lines (digital and analog) for direct connection to/from the field. WEB-Engine can be considered like a micro-PLC, having enough processing power to simultaneously run INTERNET/WAP protocols and user embedded application code for I/O processing.

WEB-Engine can send e-mail and SMS if some input is activated or if a particular event require to be notified.

WEB-Engine programming and set-up is done through WE-DEVTOOL, an integrated development environment for Windows 98/2000/NT that guides software developers through user interface planning, design, and HTML/WML coding. For skilled application developers a full featured C programming workbench and IDE (Integrated Development Environment) is also available.

WEB-Engine can be easily connected to supervision software packages (SCADA/RTU), communicating with them through the serial port (RS232/485) and the built in protocol compatible with ModBus. Direct connection with standard modem is also possible for complete programming and check up of the system.

WEB server

WEB technology has been implemented to allow users to access data and to control remote system using a standard browser (for example Microsoft Internet Explorer or Netscape Communicator).

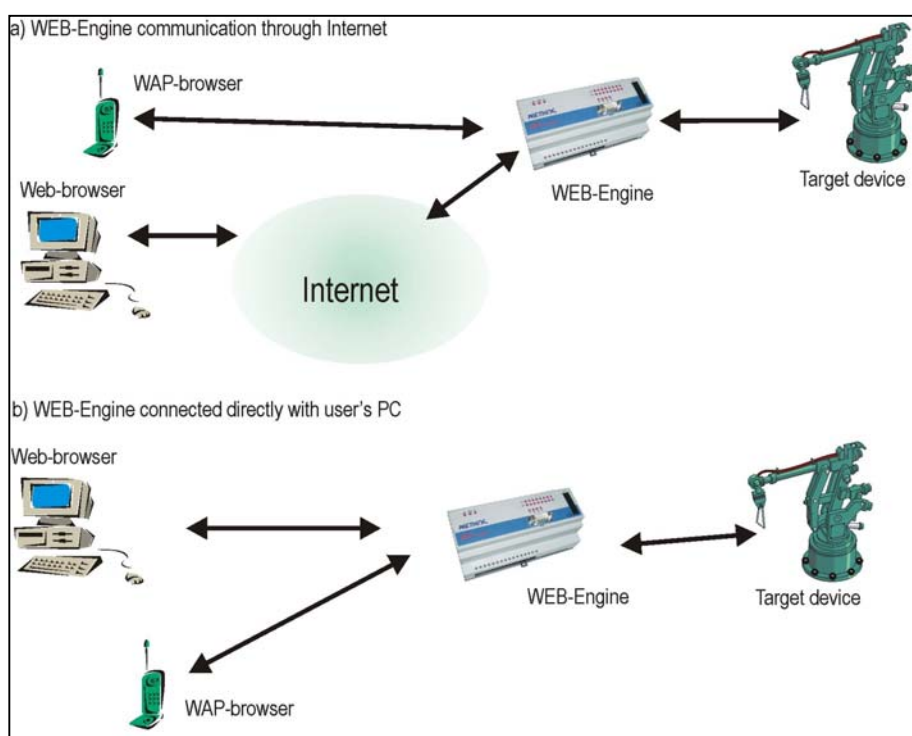
Nethix WEB server can be accessed in two ways.



- Using an Internet connection. In this case both client (user) and server are connected to an ISP and communicate through Internet network and protocols. WEB engine connects to an ISP through a GSM CSD (GPRS optional) data connection.



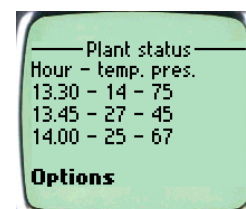
- Directly with a point to point connection. In this case the same Internet protocols (TCP/IP) are used, independently of the World Wide Web, over a dedicated GSM data connection, offering a higher level of security and lower service cost.

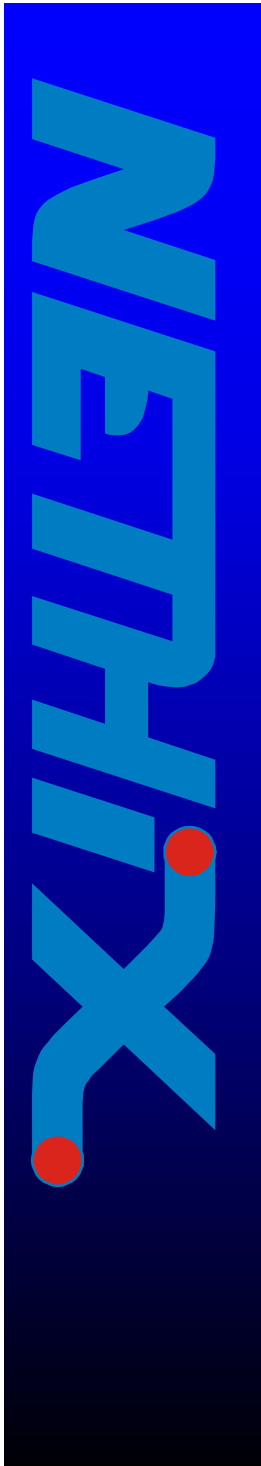


WAP server

The basic idea of an embedded WAP server is to use the mobile phone and its user interface (the WAP browser) to control devices or systems from any remote site. With WAP connectivity features offered by WEB-Engine it is possible to activate, monitor and control with a GSM phone remote devices like boilers, air conditioning systems, buildings, alarms and security systems, appliances, and also industrial plants, vending machines and all those devices that need a continuous check up.

Users can show application data on the display of the GSM cellular phone (for example in industrial plant monitoring, telemetry, data collection) and remotely control any kind of electronic equipment without the need for a custom remote control unit.





Protocols

- PPP, ICMP, IP, UDP, TCP
- SMTP E-mail client
- HTTP server
- FTP server
- WDP, WTP, WSP, WAE Wap protocols

Accessories

- Dual band GSM antenna with magnetic base
- Dual band GSM antenna for roof or screw mounting
- DIN rail power supply (230Vac in, 24Vac out)
- DIN rail expansion module (8/16/32 I/O)
- RS232, RS485 serial cable
- C IDE programming toolkit

Applications

- Industrial plant monitoring and remote control
- Home and building automation
- M2M (machine to machine) communications
- Gas, water, electricity remote meter reading
- Weather monitoring
- Telemetry
- Automotive applications

Features

- Standalone WEB, WAP & SMS server for remote control/monitoring applications
- Fully customisable for target application/system
- Software development tool WE-DEVTOOL help programmers coding the user interface and setting up WEB/WAP libraries and server
- 16 bits microprocessor
- 640 Kbytes Flash ROM
- 32 Kbytes RAM
- 64 Kbytes EEPROM
- Internal RTC
- Dual Band GSM modem, EGSM900/GSM1800 (GPRS optional)
- Full Type Approval Phase 2/2+
- Voice, SMS, data and fax
- Hayes compatible AT commands
- LEDs for I/O signalling
- 4 optoisolated digital input (0÷24V)
- 4 relays output
- 4 analog input (0÷5V, compatible 4÷20mA)
- 2 analog output (0÷5V)
- Expansion connector with 8 TTL/CMOS I/O lines
- Plastic IP 41 DIN rail enclosure
- Dimensions: 157 x 86 x 58 mm
- Working temperature: -25°C ÷ +65°C (-13°F ÷ +149°F)
- Storage temperature: -40°C ÷ +80°C (-40°F ÷ +176°F)
- Power Supply 9-30VDC/12-24VAC
- ModBus compatible protocol built in



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