



REACH

Web Monitoring System

**Cloud computing
for Industries**



Project Engineering
CONTROLLI & SISTEMI

REACH

PLANT MONITORING AND DATA ACQUISITION VIA INTERNET / MOBILE NETWORKS

Is a set of tools to collect and make available, trough Internet, the data of the installed plants and allows real-time interaction with the remote controllers.

Initially developed to monitor refrigerating and air conditioning plants managed by our control boards, can be also used for plants managed with Modbus protocol. Examples of applications are remote control of chillers, heat pumps, dry coolers, air conditioners / close controls and presses for winemaking.

This innovative tool is primarily addressed to machines manufacturers and installers of large plants. With this system you can:

- reduce service time and cost;
- improve and speed up complex systems fine tuning;
- reduce technical analysis time and cost;
- easily create reporting for plant control management;
- easily share management documentation to customers and service network.

ARCHITECTURE

Each installation has the "Ping!", an advanced Gateway which allows the plant to communicate with the "monitoring server".

The monitoring server communicates with the remote plants trough Internet (through cable or mobile connection HSUPA/UMTS/GPRS) and performs a 24h/7 monitoring of all the plants.

The monitoring server automatically collects alarms from remote installations and generate the notifications (by mail or SMS) to the users; moreover the server periodically downloads from the plants all the parameters configured to be recorded and it handles automatic status polling. All collected information is stored in a database available online.

With a standard internet browser is also available the "OnBoard Touch" web application that allows the user to have a real-time access to the boards (both remote and local access).



Ping! and M2M data SIM

Ping! is a gateway between the outside world and the control boards (RS485 for field connection). The interaction with the boards is possible both remotely (with the REACH web site) and locally. The information is available in real-time through the web server integrated in the Ping! using a standard browser and different platforms: Windows, Mac and mobile devices.

The internet connection is possible both using Ethernet/LAN cable or using an external 3G router (optional) with preinstalled M2M data SIM provided by Project Engineering. The second solution makes the installation of the system independent from the presence of an Ethernet cable and, giving access to the server through the M2M VODAFONE platform, has the following advantages:

- Dedicated APN and protected network (VPN)
- Connection available only from Project Engineering servers
- Real time control of SIM status, traffic, location
- Flat costs (depending on roaming operators)
- Connection available worldwide



Onboard and OnBoard Touch

Onboard and Onboard Touch makes it available all field information, allowing you to interact with the boards both locally (via WiFi or Ethernet cable) or remotely via the Internet.

Onboard is a sw to be installed on a PC while "OnBoard Touch" is a cross-platform web interface designed to be used both for PC and mobile devices and doesn't need installation.

The system provides multiple levels of access and its main features are:

- Real-time display of all analog inputs values (sensors and transducers) and analog outputs, as a graph or table
- Real-time display of all digital I/O
- View and change all parameters setup
- Send commands to the plant
- Remote software upgrade for boards/plant if supported by the remote board



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