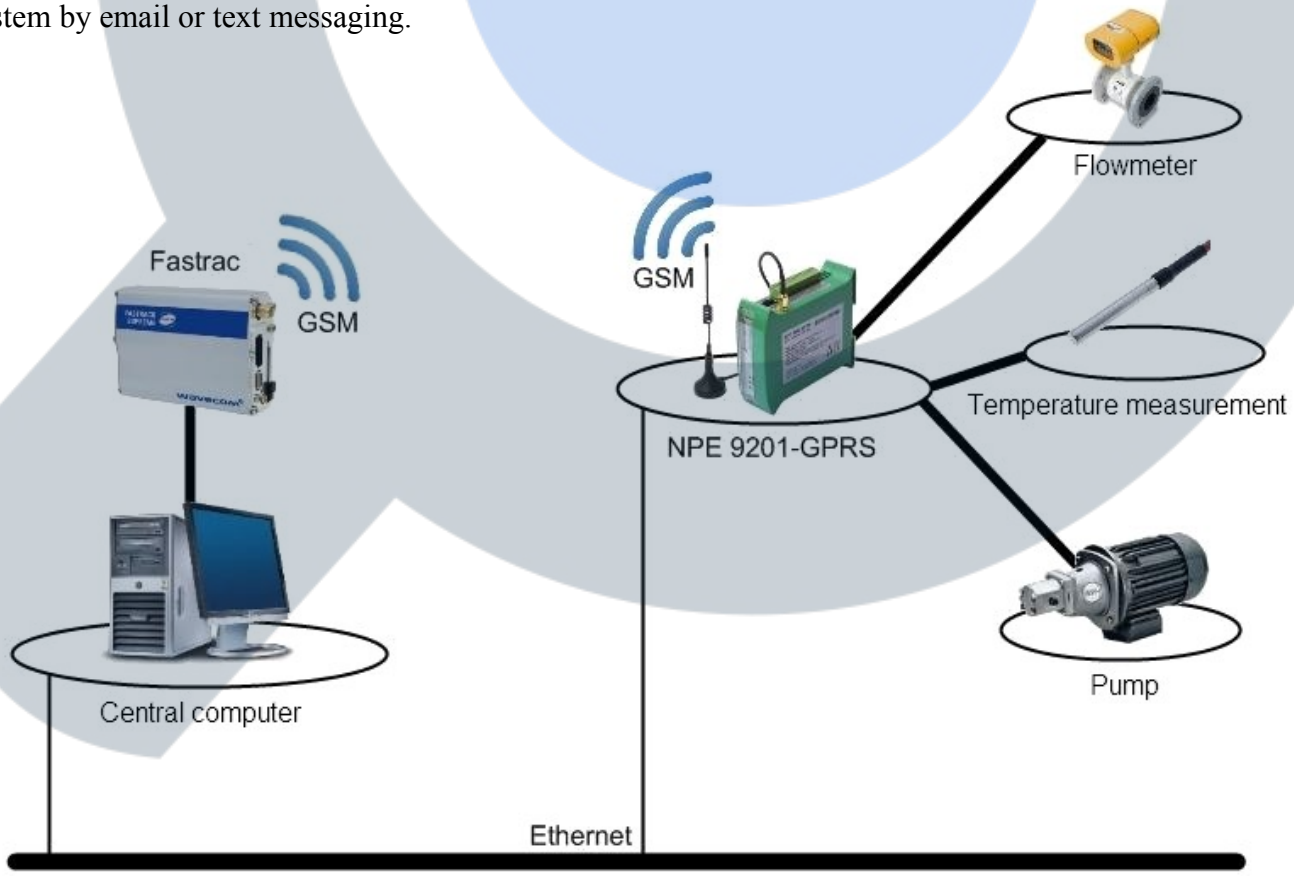
System controlling the flow of heat energy

Heating systems

Where there is a need to monitor heat flow, when the clients expectations rise and technology progresses, there is a need for higher precision. Solutions based only on technologies involving conduits are not satisfactory anymore. In this industry, devices and installations are often scattered over a large area. Using cable transmissions is unpractical and fallible, but often cheaper. This is why we suggest a System for controlling the flow of heat energy operated by the NPE 9201-GPRS industrial computer. Transmissions are carried out using the Internet and the GSM network. This is a solution that is modern, universal, and resistant to failure.

Instantaneous access to data

In places to be monitored or controlled, sensors or control systems are installed. These in turn are connected to the NPE industrial computer. It collects data and subjects it to analysis, and controls devices. Then, using ethernet or the GSM network, it sends messages to the central computer. In the event that it becomes necessary for a worker to intervene, it sends a message with guidelines to the person responsible for supervising the system by email or text messaging.



Readings and data transfer
The NPE 9201-GPRS computer reads the state of the flowmeter connected to digital inputs, and also the state of the thermometer. It can control the output of the pumps by means of analog outputs. After accumulating data, NPE sends it at a fixed time or on demand through the Ethernet network or GSM to the control station.

Analysis and reaction
The central computer at the control station has Scada Movicon software installed, which allows for the visualization of received data in the form of trend lines, graphs, charts, etc. In the event of an Ethernet network emergency, NPE immediately starts to utilize the GSM network; sending data through a built-in modem. In this case, in the control station, information is received by a Fastrack 20 modem, which then transmits it to a computer through RS232 interface.

Cutting-edge technology
Utilizing telemetry in the field of energy distribution and division allows the automatic transmission of data from objects such as thermal nodes or heat sources to the central dispatchroom. There, the accumulated data is visualized, stored and analyzed appropriately. Telemetry also makes it possible to remotely monitor parametric changes of the functioning of thermal nodes.

Accomodation to needs
The capability of accommodating the system, including channels of communication, to the needs, preferences and capabilities of the client is worthy of note. It is possible to mingle wired and wireless communication in any configuration. When dealing with smaller distances, a cheaper solution using Ethernet cables is generally used. For larger distances, wireless GSM communication is used. The realization of such a system is much cheaper and does not require much interference in the infrastructure of the industrial establishment

Our system makes it possible to:

- ✔ **Control the state of heating installations**
- ✔ **Conduct the instant intervention of automatic systems**
- ✔ **Instantaneously contact a responsible party about the problem**
- ✔ **Enclose in its actions objects of various amounts and types of devices**
- ✔ **Remotely control elements of the system**
- ✔ **Conduct precise diagnostics of the inspected system and instantly analyze the data**

Our solution distinguishes itself with:

- ✔ **The capability of its application despite any distance between objects**
- ✔ **The application of universal and efficient means of communication – text messaging and email**
- ✔ **A short time of implementation**
- ✔ **Very high reliability**
- ✔ **Flexibility in the system's realization, depending on the client's needs**
- ✔ **Lack of expansive antennae systems**

Do you want to learn more? We invite you to visit our Internet site: www.a2s.pl. Please send any questions, suggestions and concerns to the following address info@a2s.pl, or call us at: +48 58 345 39 22 or 23. Out experts will gladly and thoroughly answer your questions.