

ScatterWeb

Wireless Network Solutions for Energy Management





Automated Meter Reading

Saving energy is not only a commercial target for companies and individuals alike, it is also an ethical issue that makes efficiency improvement a necessity.

In order to control the consumption of energy (Gas, Oil, Heating, and Power) in a manner that allows measures to manage the use of this scarce and expensive resources smart monitoring and control solutions are required. And the source of all control is the ability to centrally collect the data about the actual consumption that is only available to respective meters.

ScatterWeb "Automated Meter Reading" modules enable us to control your electric, gas or water meter remotely without having to physically visit and manually read your meter.

The ScatterWeb technology allows not only the collection of data but also sending data backwards in order to actively control the energy consumption as it happens.

ScatterWeb is the ideal backbone for automated meter reading installations with a powerful radio that also allows switching floors and going through walls.

In times where energy is no longer unlimited available as well as affordable; facility and industry managers need an exact overview over all energy consumed and the allocated costs.

For instance, analyzing the consumption on electricity, heating or cooling is the first step to organize the energy consumption more efficiently.

ScatterWeb GmbH proudly provides the infrastructure to get data wireless per multi-hop in real-time out of your meters into your analyzing tools – and that without cost intensive cabling!

By deploying ScatterWeb technology, you will be able to analyze and collect your data on energy consumption more frequent and accurate and all that can be done without the need for meter readers to come to your property.

As a result, the need for estimated bills will be virtually eliminated, leading your processes to greater accuracy on your monthly bill as well as evaluating your consumption waste.

Benefits of ScatterWeb Automated Meter Reading?

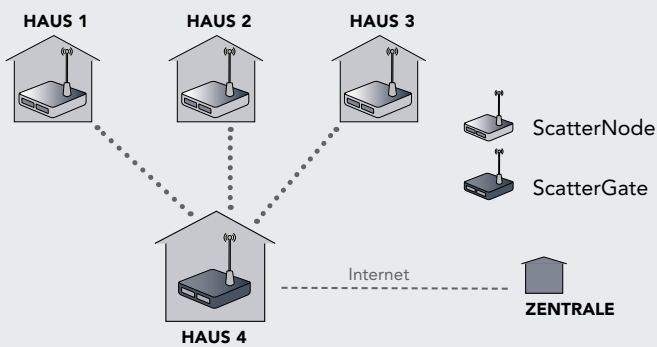
- > direct savings associated with not having meter reader staff walking or driving around the neighborhoods,
- > reduced opportunities for energy theft
- > real-time usage data from any meter in the system instantly and all meters are always accessible
- > intelligent energy management and two way communication in order to manage peaks and off peak times efficiently

How does it work?

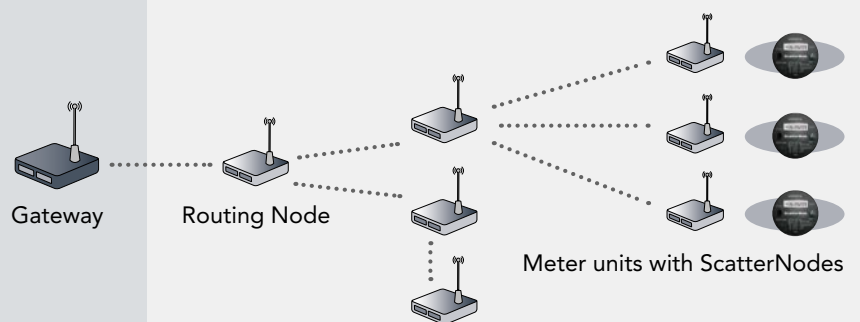
1. Setting up the current meter reader system with an adaptive bus system (M-Bus, Current loop, etc.) in order to connect to ScatterNode.
2. Each cellar or meter reader location one unit per bus
3. The meters data is sent from the ScatterNode attached to your existing wired meter system and the existing power line.

From the ScatterNode Bus-adapter the data travels wireless through ScatterNodes depending on the distance either direct or via multi hop over additional ScatterNodes to the company data center, where the ScatterWeb Gateway will collect all data available and then send them to an integrated PC or Monitor.

In that way the customer receives critical information as well as billing system information that can show up the consumption, changes in consumption and unusual behavior.



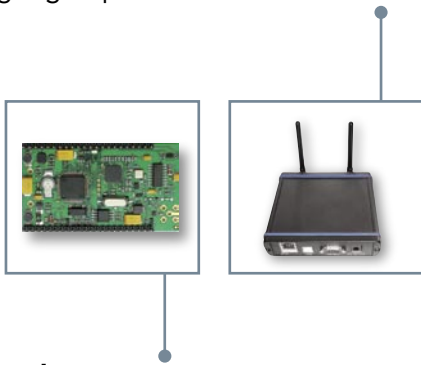
AMR with ScatterWeb Technology



ScatterWeb components

ScatterGate

The ScatterWeb ScatterGate provides the full-featured gateway between the ScatterWeb sensor network and other networks or computing devices. Together with the ScatterWeb routing it allows data gathering from the sensor network as well as sending configuration commands to single nodes or to larger groups.



ScatterNode

The ScatterWeb ScatterNode is the core module for building large-scale sensor networks. It is fully modular and provides analogue and digital I/O for integration of a great variety of analogue and digital sensors or meters. The ScatterNode can be integrated into the ScatterWeb data gathering and routing.

About ScatterWeb

ScatterWeb GmbH, founded 2005 in Berlin, Germany, is a European leader in wireless networking solutions. The focus of all activities is the development and marketing of hard- and software for wireless, self-configuring multi-hop ad-hoc sensor networks for different applications as well as the consulting services around the implementation ScatterWeb based wireless networks. The technology has been successfully applied to a wide array of real-world scenarios including reliable logistics, asset tracking projects.

The benefits for ScatterWeb customers are:

- > Reducing the cost of goods sold
Reducing the costs of doing business
Elimination of waste
- > dramatically reduced costs for the network installation compared to a wired network,
- > maintenance free components thanks to autoconfiguration and highly-energy efficient protocols
- > the possibility for updating after deployment over-the-air, and the extremely high reliability due to dynamic and adaptive routing mechanisms