

# ENERGY TEAM SERVICE GAINS COMPETITIVE ADVANTAGE WITH A SIMPLE, STREAMLINED HEAT COST ALLOCATOR SOLUTION



Energy Team Service has simplified the management of heating systems with a heat cost allocator that reduces administrative duties of its personnel, while adding value to its customers' home heating network.

## EXECUTIVE SUMMARY

Companies working in the energy sector are traditionally performing activities related to heat measuring and allocation manually. In particular, whenever one of these companies acquires a new apartment block, the initial configuration of the building on its system - that is, the registration of all the properties' details regarding the heating systems - usually takes a large amount of time due to the countless possibilities that can be encountered for different houses. Therefore, properties are generally inserted into the system manually, one by one. Additionally, the calculation of expenses is typically done with little or no automation, resulting in a process that is overall, unreliable and inefficient.

Energy Team Service, a company who specializes in the heat allocation in buildings with central heating systems, realized that by digitizing the traditional process they would gain advantages on multiple sides: in fact, by taking this opportunity they would be able to streamline and automate these manual activities, while at the same time providing their clients with additional, distinctive services to help them keep track of their heating expenses.

With these objectives in mind, the company decided to implement an innovative custom solution for easier heat allocation. The new platform, accessible both via web and mobile app, satisfies all users: our client's technicians can now easily and rapidly configure buildings and perform calculations, while end users (administrators and homeowners) are provided with a single, user-friendly tool to monitor their consumption and expenses with maximum transparency.

## ABOUT OUR CLIENT

**Energy Team Service** is an Italian business based in Asti, founded in 2008 by a small team of people with more than 10 years of experience in the energy & heating sector. Specialized in the evaluation and allocation of heat expenses in apartment blocks with central heating, it works with blocks administrators, homeowners and installers of energy systems to efficiently meet their challenges and needs.

## CHALLENGES

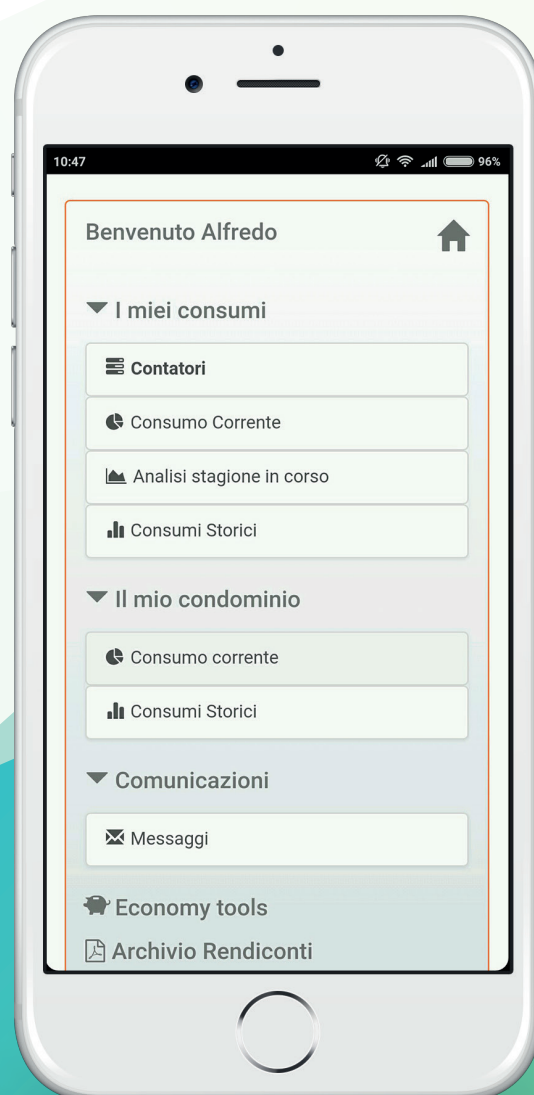
In all Europe, home heating has been a central topic for the last several years. As a result of changing laws, evolving guidelines and newly available technologies, home heating systems are far from being standardized. In fact, in different homes you will likely find different configurations and devices, with a myriad of possibilities. For example, the same property may have two boilers, one for heating and one for hot water; another one a hybrid system, meaning a traditional boiler plus a solar powered device – and this gets even more complicated in apartment blocks equipped with central heating.

In this case, when calculating the heating expenses of each homeowner, all the properties' configurations need to be considered in order to get the right subdivision. The quota of each property can be tracked thanks to small devices glued to radiators or installed outside the houses, measuring the exact amount of heat consumed. These meters register and store the relevant data until the end of the season, when the heating is turned off; at that point, technicians connect to a software (provided by the device vendor) and download the data collected by every device. Basing on that data, that are integrated with additional information regarding the building configuration, they can finally calculate the expenses for the season.

This standard procedure presents some issues:

- ▶ **The files containing the devices' data are not standardized** between different vendors, but are provided in different custom formats depending on the device brand. Technicians are forced to collect all the files and manually convert them into the desired format, in order to consolidate data and perform the subsequent steps.
- ▶ **The data from the devices need to be integrated with the information about the property they're located in** (e.g. type/number of boilers, number and location of radiators, house area...). This initial configuration, always required when the service company acquire a new apartment block to manage, is a time-consuming activity given the huge number of possibilities when dealing with heating systems.

As a result, the employees of Energy Team Service were spending a significant amount of time performing redundant activities like data management and configuration of new buildings. Understanding that, by overcoming this un-optimized process, their business could achieve higher operational efficiency and therefore have higher potential for expansion in the market, Energy Team Service sought to improve the management and collection of the critical data their business is founded upon.



## THE SOLUTION

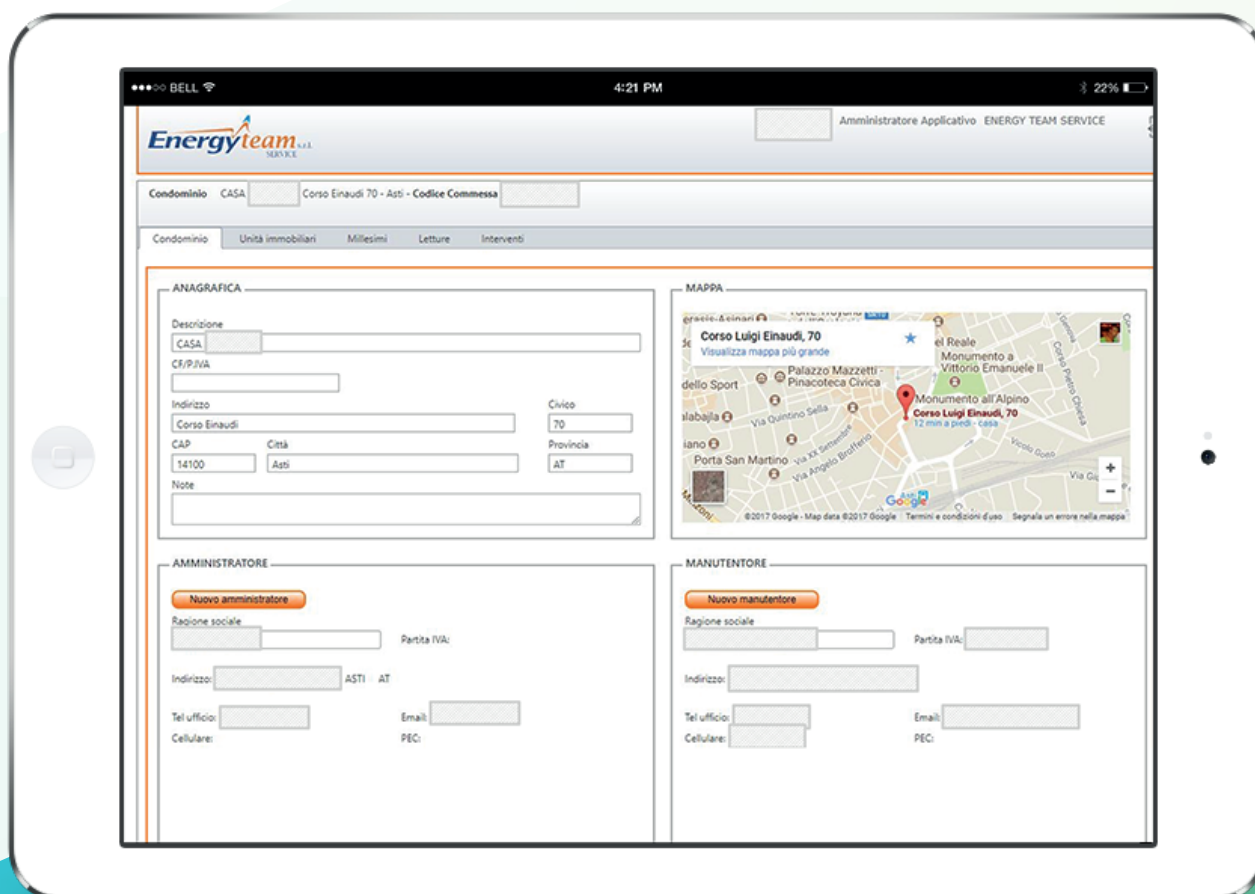
Our client decided to invest in an innovative, custom solution that would support them in the streamlined allocation of the heating expenses, at the same time having the objective of providing their clients with a value-added service, that would distinguish them from their competitors.

The new solution was developed in 8 months and required an in-depth analysis of all the possible heating configurations in building. These configurations were included in the platform as a list of pre-set use cases in order to make the initial property setup easier and faster.

The cloud-based platform features two web-based interfaces, serving different users:

- ▶ interface for backend management, intended for technicians (those in charge of the expense evaluation) and administrators ("business users");
- ▶ interface for frontend management, intended for homeowners ("customers").

The application is available for desktop and mobile devices or tablets. With its responsive design and consumer grade user experience, it assists technicians, administrators in performing their jobs more efficiently, while providing homeowners better insights and control on managing the heating expenses.



## HOW THE SOLUTION HELPED

The new platform has revolutionized the way technicians, administrators and homeowners manage heat consumption activities, adding value to each of their routines.

### *Service Company Technicians and Administrators*

When a new apartment block is assigned to our client, the initial configuration of the building now takes a matter of seconds, thanks to the inclusion of all possible heating setups into the platform template. The operator simply selects the device brand and the use case from a list, and carries out the configuration of each property.

The speed and simplicity of the new system allow immediate benefits for the technicians:

- ▶ **Heat allocation and accounting can now be performed for any possible configuration of heating systems**, thanks to the standardization of the data on the platform.
- ▶ **Manual activities are considerably reduced, optimizing the process in terms of speed of calculation and reliability of results**; this also has an implied workforce cost reduction and a higher operational efficiency.

Administrators can access the application with a specific profile that allows them to visualize all the configured data, edit specific information related to the buildings they're managing (e.g. update the personal information of a property owner) and download reports.





## Property Owners

Property owners now have a user-friendly tool that allows the transparent monitoring of heat consumption and expenses at their various buildings and properties. The mobile app, available on Google Play and Apple App Store, provides them anytime visibility onto the situation from their pocket.

The new application leads to interesting benefits:

- ▶ **A single app for multiple properties:** customers can see all the properties they own, provided that are managed by our client, on the same app.
- ▶ **Maximum transparency over the heat consumption:** on the app, users can see the heat consumption of each radiator/room/house, and can immediately see how much they are going to spend at the end of the season basing on the current setting of their radiators.
- ▶ **Historical analysis and forecasting:** the data of the previous year are recorded on the platform, thus allowing users to make comparisons with the previous year trend and with the average consumption of their apartment block. Furthermore, a specific feature on the app allows them to virtually raise/decrease the temperature of each radiator and see the economic impact of that variation on the final expense.

Through the app, the company also offers a series of additional services to their clients:

- ▶ **In case of breakdown or malfunctions of the heating system, users can request technical intervention directly from the app,** attaching photos of the problem and sending to the service company with just a click.
- ▶ **A messaging section allows administrators and service companies to send instant notifications to the homeowners** about important news, planned maintenance activities, etc. The messages are displayed as push notifications and are later stored in the app, where they can be retrieved anytime.
- ▶ **Instruction handbooks of the devices are stored on the platform:** manuals are automatically available to users, basing on the brand of the devices installed in their properties.



## RESULTS, ROI AND FUTURE PLANS

The innovative solution has provided our client with a real competitive advantage, thanks to the value-added services they are now able to provide to their customers.

Today, Energy Team Service can effectively manage 695 apartment blocks (12,505 single properties) collecting data from a total of 73,553 installed devices, with a team of fewer than 10 people - positioning themselves as one of the most important and advanced companies in their sector in the Italian market.

### ABOUT THE AUTHOR

#### ALFREDO RAINERI Microsoft Practice Manager

Alfredo's range of expertise spans from Microsoft's technology architecture up to the Solutions' application frameworks. He has a unique vision and expertise in the design and development of digital collaboration networks using Microsoft SharePoint.

Alfredo holds 20 years of experience in the consulting industry, providing services and solutions to large scale Microsoft clients across several different sectors, with particular focus in Pharma and Industrial.



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