

IoT Connecting the Dots for Better Customer Experience and Transform Business



Trigent helped us build a web-based application with interactive, user-friendly interfaces which empowers us to streamline our processes and transform our business for an energy-efficient future.



Industry

HVAC

Business Value

- Reduce costs of operation and maintenance of legacy applications
- 60% increase in customer base in less than one year of release
- Elevated to the position of a thought leader in the food industry energy maintenance space

About the Client

The client is a global technology leader in indoor air solutions for demanding spaces. They develop and provide solutions for commercial and public facilities, healthcare institutions, laboratories, professional kitchens, restaurants, energy production environments, and marine vessels. The company aims to create comfortable and safe indoor environments that have energy-efficient and sustainable life cycles.

A key offering by the client to the global food chains is an energy and maintenance proprietary technology, designed to ensure memorable customer experiences with safe, comfortable and productive indoor environments that are energy-efficient and comply with sustainable principles.

Business Need

The client's energy and maintenance portal was developed using Adobe Flash™ technology that posed several limitations.

- Bugs and errors proved to be a deterrent to end users
- Non-responsive user interface
- End of life technology
- Lack of proper documentation

The client wanted the portal application to support a customized, automated, responsive design that works across multiple browsers and devices.

Technology Stack

- **Platform:** Angular JS 5.0, jQuery 2.2, HTML5, CSS3, Bootstrap 3.3, .NET 4.6, ASP.NET Web API 2.2, Entity Framework 6.0, IIS 8.0
- **Database:** SQL Server 2008
- **Browser:** IE 11, Microsoft Edge, Chrome 47 on windows
- **Mobile Browser:** Safari on iPhone, iPad, Chrome on Samsung Galaxy Tab, Samsung Duos
- **Other:** Jenkins, Gulp

Solution

The current application certainly needed a visual facelift. Our discovery engagement with our client revealed that the application also failed in terms of its core functionalities and user experience.

Due to the lack of documentation Trigent's team focused quite heavily on understanding the existing application and prepared a detailed document with recommendations on the new scalable architecture and technology stack.

Trigent technology team, backed by domain expertise, created a multi-layered web-based application, with an interactive UI, that can monitor and control remote IoT device in commercial kitchens.

The energy management application empowers the facility managers to:

- Administer users, locations, and groups who can access the application from any browser to view the system in real time.
- Monitor remote locations in real-time with the use of dynamic parameters assigned to animated elements.
- Control the equipment in real-time and configurable schedules. These actions are archived in the database, along with information about who made the changes and when.
- View real-time energy-relevant parameters (data collection for energy monitoring, data logging and reporting, trend analysis).
- Easily create graphical user interfaces for a wide spectrum of projects with the use of preconfigured graphical and dynamic elements.
- Archive alarms. Users are notified of alarms by text messaging or email.
- Configure schedules for desired parameters.
- Access trends and reports in form of graphs, tables or spreadsheets.
- View controller archives.

Client Benefits

The smart application deployed using cloud infrastructure has benefited the client in several ways:

- The applications ability to troubleshoot remotely has increased its customer base by over 60% in less than a year.
- The client has moved to the top of the list of companies providing energy management services and is now considered a thought leader in its chosen space of work.
- The new application enables real-time data reporting, obtain instant alerts regarding outages or breakages, and collect or report other data to maintain and improve systems.

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