

Novalume is an international company which develops and manufactures advanced energy-efficient LED lighting solutions.



Challenges

- A high concurrent, high load solution.
- Must control 2m lamps all over the world.
- Fully designed server architecture.
- Collect and store vast amounts of metric data.
- Plugin system to connect multiple device vendors.
- Develop the mobile application for manufacturers that will scan components being assembled into the asset.
- Automatically sync scanned data with the server.
- Support multiple customers within one platform.
- A customer can control, view and manage only their city luminaire setup.
- Organize and control luminaries as a group.

Solution

LUMINTELL™ is an intelligent control and maintenance system that optimizes street light usage to lower energy consumption by decreasing the lighting level during off-peak traffic hours. It also reduces maintenance costs via real-time monitoring and reporting of performance. Many other features are available at the click of a mouse, all without compromising quality or safety.

The software allows visualizing entire street light installations and monitoring their operation. Also, you can evaluate the consumption and intensity of the light emitted from the luminaire, individually or in groups. Additionally, it allows you to adjust its parameters in real time, without any additional costs towards increasing the lifetime of the luminaries.

Tools and technologies

- ASP.NET MVC
- Azure
- Azure SQL
- MongoDB
- Entity Framework Code First
- Redis
- Event Hubs
- Azure Service Bus (MQ)
- SignalR
- Angular.js
- StructureMap
- AutoMapper
- HTML/CSS/JavaScript
- jQuery/Bootstrap
- Windows Mobile

Scope of work

- Decision on the technical stack
- Architecture engineering
- User interface/User experience (UI/UX) design
- Front-end/back-end development
- Requirements elaboration
- Quality assurance
- SaaS deployment
- Participation in product management
- Mobile app development

Results

- Our team of 6 engineers developed a working solution which includes an admin website, a client website and an Android application.

