Developing an Internet of Things (IoT) Smart Lighting Customer Service Platform in the Cloud

PhotonStar leads with Disruptive Technology

Overview

Need

To provide halcyon lighting system customers with online technical support PhotonStar needed a platform to deliver a gateway password reset service, automatic system backup and recovery with remote access for troubleshooting as soon as the halcyon product was launched.

Solution

PhotonStar is building an Internet of Things (IoT) based customer service platform using the IBM Bluemix platform Liberty for Java and Cloudant DBaaS to meet their very exacting timescales and delivery requirements.

Benefit

Using IBM® Bluemix™ the development took 10 days and PhotonStar delivered a secure cloud based customer service platform for all of its halcyon product range on time for its product launch.

PhotonStar LED Group plc has developed an extremely innovative wireless lighting system based on ARM® processor technology that seamlessly integrates LED lighting, sensors and control. The PhotonStar halcyon™ system provides optimised lighting that emulates changing daylight and delivers the right light at the right time for health, productivity and wellbeing. Integrated halcyon network sensors collect real time environmental, behavioural and energy data that enables the system to operate as part of the Internet of Things (IoT) generating information that will drive new business models for PhotonStar and new solutions for their customers.

The halcyon system needed a cloud based customer service platform before the product could be released for sale, and PhotonStar required an out of the box user experience that was quick for the customer to navigate. Especially important was ease of use in programming customized lighting controllers which allow PhotonStar to provide a secure backup, remote technical support and password reset service.

Smart and Fast

Dr Majd Zoorob, CTO of PhotonStar LED identified IBM® Bluemix™ as the perfect commercial and technology platform, as it provides a cost effective, scalable, flexible solution for a growing IoT business. The features that had to be part of the solution consisted of obtaining client details to facilitate customer relationship management activities and most crucially associate customers with their own halcyon installation. The solution also had to enable PhotonStar customer service personnel to provide customer support to reset passwords and restore a complete system configuration that would be based on a secure cloud backup that was enabled by IBM Bluemix. The Bluemix platform and the service components within it, Liberty for Java and Cloudant database as a service (DBaaS), provided an extremely fast environment to develop ideas and deploy in real time for evaluation. The production version of the customer service platform was deployed after only 10 days of effort and enabled the halcyon product launch to proceed as planned.

"This next revolutionary step for our halcyon platform will drive disruption into the lighting industry and building services that will create new opportunities for ourselves and our partners. We are all very excited that PhotonStar technology is driving the digitisation of lighting where light and data converge,"

Dr Majd Zoorob, Chief Technology Officer at PhotonStar LED

"Dr James McKenzie, CEO of PhotonStar LED, said, "we believe halcyon platform is one of the first professional lighting systems to be part of the Internet of Things which is projected to drive digital growth in the next 5 years with projections that the smart lighting market is expected to reach USD 8.14 Billion by 2020, growing at a CAGR of 22.07% between 2015 and 2020 and that opens up a considerable market opportunity for our smart lighting solutions and our partnerships."*

— MarketsandMarkets - Smart Lighting Market by Connectivity Technologies - Global Forecast to 2020

Keeping it Secure

Security in the halcyon lighting system is a key feature and delivers a huge benefit to users who are confident that their lighting system is based on state of the art technology. The partnership with IBM enhances the delivery of a secure customer service platform and generates confidence and assurance of continuous service, which is vital to an emerging IoT business to develop new service models.

Smart Lighting

Lighting is one of the fastest growing market segments in the IoT and the deployment of smart lighting networks presents a huge opportunity for the industry.

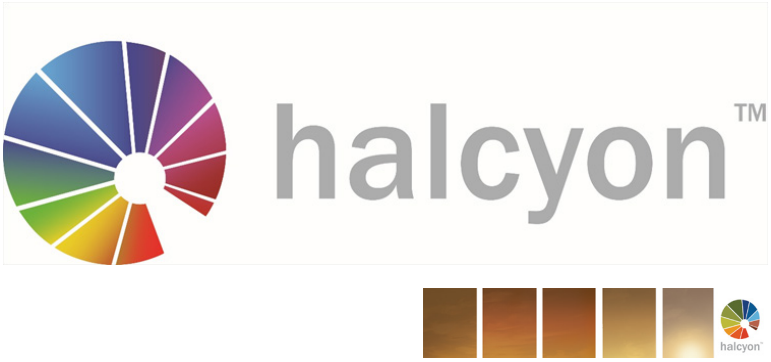
Partnership and Deployment

Following the successful halcyon launch and deployment of their customer service platform, PhotonStar completed a full retrofit of halcyon lighting into the IBM Mobility and Internet of Things lab at the world renowned Hursley laboratory in Hampshire, England. This installation is used by IBM to illustrate how the digitisation of lighting, where light and data converge, delivers exciting new use cases for businesses to leverage. Photonstar is now extending their solution to take advantage of IBM's recently announced Internet of Things Foundation platform and analytics capabilities of IBM Real-time Insights.

Solution Components

Software

- IBM Cloudant ®
- Liberty for Java™ applications on IBM ®
- Bluemix™
- IBM IoT Foundation on Bluemix
- IBM IoT Real-Time Insights



IBM Corporation
Route 100
Somers, NY 10589

Produced in the United States of America
December 2015