

A Healthcare Firm uses Azure IoT Remote Monitoring Solution for Real-time Monitoring of Healthcare Devices' Status

Customer Profile:

An American company that manufactures DNA microarrays wanted to create a remote monitoring solution using which they could keep a close watch on the status of their healthcare related devices by capturing data for various metrics such as Oven Temperature, Arrays Processed, Auto Focus times, and available lamp life on the device.

Business Situation:

The customer wanted to create a remote monitoring solution using which they could monitor the health of health care related devices by capturing data for various metrics such as Oven Temperature, Arrays Processed, Auto Focus times, and available lamp life on the device.

Currently, all their devices are connected to a local windows machine that stores all the above information in the form of log files. In order to check the device status, users would have to individually view the logs for a device and scan thru them to identify any problem. This is a time consuming process, and not very efficient.

They wanted a solution where they could monitor all devices using a common platform and quickly analyze the performance or identify problems by looking at the Dashboard, KPIs, and errors or warnings generated by the device.

WinWire Solution:

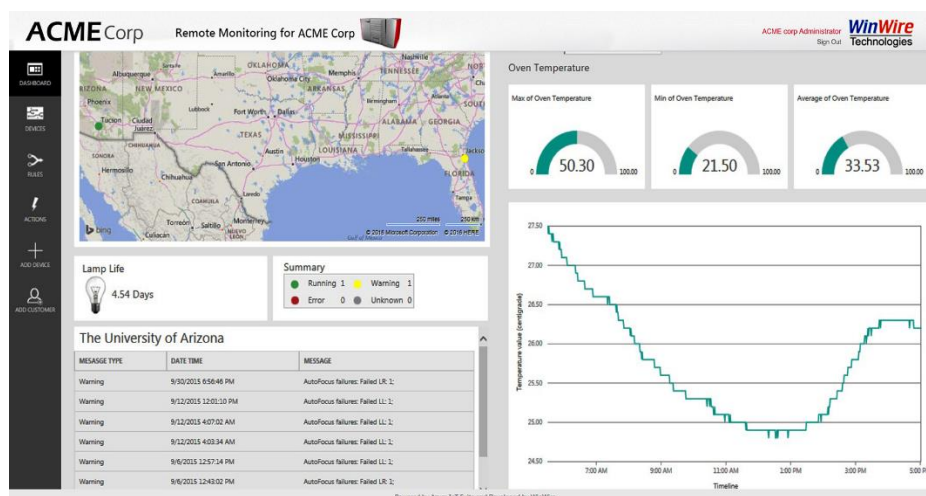
WinWire Technologies built a remote monitoring solution by using **Azure IoT Suite**. An **Azure IoT Hub** was provisioned for devices to connect and send data to the cloud. The data received by the IoT Hub is processed by stream analytics, and depending on the message type it is stored in corresponding table in **Azure Table Storage**. A SQL Database on Azure was utilized to maintain the list of devices and related master data.

The application handles all device management activities such as adding/registering a new device, view properties related to a specific device, search for devices based on any properties or customer.

The application also has the provision to add thresholds/rules to any of the KPIs specific to each device that would generate alerts when the value crosses the defined threshold. The KPIs are displayed as graphs which were built using Power BI visuals, with an indicator for the defined threshold value.

In order to support using the application as the devices were being programmed to communicate with the IoT Hub, users could upload the log files generated by the device to upload data that actually helped the customer see the value of the application even before updating the device software.

Technologies Used: Azure IoT Hub, SQL Server Database, Bing Maps API



WinWire Technologies Inc.

2350 Mission College Boulevard, Suite 925, Santa Clara, California 95054

Phone/FAX: +1 (888) 849 7339; Email: info@winwire.com Website: www.winwire.com