Asset Maintenance using Azure Digital Twin

Digital Twin on Microsoft Azure

Solution Overview and Major Features

Digital Twin is a logical extension of Predictive Asset Maintenance (PAM) solutions. With a twin, it is possible to build a virtual version of an asset where data and predictive insights can be overlaid on the asset to provide meaningful and rich insight to the maintenance staff. This Solution is a combination of a fan and CPU. As soon as heat increases beyond a certain threshold, the fan will start automatically and vice versa. This solution in real-time is connected to actual hardware as well as the simulated version of the assets to demonstrate the features. This solution has used Azure's out-of-the-box services like Azure IOT Hub, Device Twin, Azure functions, etc. integrated with Custom Model designed and developed by Wipro's Data Science Team.

End to End connection and control: All hardware temperature censures are connected and controlled by the solution with 3D Visualisation containing 360 Degree Rotation .

Real-time Simulation: Simulation of temperature can be done to observe fan behaviour.

If Else Condition: User can provide own value and check the behaviour.

Dashboard: Dashboard provides a complete view and report of the process