



Tidewater Block is a family-owned manufacturer and distributor of building and masonry products in a variety of shapes and sizes designed to meet any requirement. Their manufacturing process uses high-quality aggregates and meets or exceeds ASTM-C90 specifications for load-bearing concrete units. Tidewater Block regularly conducts independent testing to ensure compliance with this ASTM standard. They supply product to commercial and federal facilities, including the construction of many of the facilities at Norfolk Naval Base, Fort Eustis, and Langley Air Force Base. Additionally, Tidewater Block provides services across the larger eastern Virginia commercial sector.

THE CHALLENGE

Most brick and block making machines work in sand, gravel, rain, and other harsh environments. This means their technical condition must work faster than the other machinery, the parts will experience different degrees of loosening, wear, and corrosion, resulting in the decline of their performance, economic reliability and eventually leading to machine downtime. This requires plant operators to schedule a strict maintenance schedule for upkeep of these equipment. Each minute a plant is down, approximately 50 employees are at a standstill, therefore limiting the number of maintenance windows is vital to the productivity of the corporation.

THE SOLUTION

CloudHesive worked with Tidewater Block to deploy an AWS solution called Monitron. Monitron uses sensors to capture vibration and temperature data from equipment, a gateway device securely transfer data to AWS, the Amazon Monitron service that analyzes the data for abnormal machine patterns using machine learning, and a companion mobile app to set up the devices and receive reports on operating behavior and alerts to potential failures in their machinery. The Amazon Monitron condition monitoring system scale from 'mom and pop shops' to large enterprises with the ability to predict failures of their equipment before a system failure. This will allow for a scheduled repair of failing equipment before it breaks down.

Technologies Leveraged

AWS: Monitron

