



# CARING FOR YOUR MISSION-CRITICAL TASKFORCE

Machines often form the backbone of businesses. Machinery breakdowns are extremely costly and there's never really a good time for these breakdowns. In response to this challenge, companies have explored a variety of strategies – even preventive maintenance programs – to increase machine uptime. But every strategy – even a combination of strategies – has had only limited success.

Infosys®



# EVERY MACHINE IS SPECIAL

Preventive maintenance relies on the average life of a machine. This statistic often fails to predict the exact maintenance schedule for a particular machine. And thus deliver expected machine uptime results. There are sensors, alignment tools, and monitoring systems to track and maintain machines. But these tools only generate a wealth of data which is not often aggregated, unified, analyzed, or acted upon. This was true for our client, a large ATM manufacturer.

The company often evaluated machines in batches or networks. As a result, predictive maintenance programs often failed to recognize the weak links in the ecosystem. Often, as certain key pieces of equipment data were left-out in their preventive maintenance program, it resulted in downtime for the entire network.

# PREDICTING IS MORE COMPLEX THAN PREVENTING

For our client, the real challenge was determining the actual condition of each, in-service equipment to predict when maintenance should be performed. This approach promises cost savings over routine or time-based preventive maintenance because tasks are performed only when warranted. The key then is to get insights into the state of the machine at the right time. By knowing precisely which equipment needs maintenance, machine upkeep can be better planned.

## BREAKTHROUGH

**We realized that an approach that could determine the condition of each individual service equipment in real-time will help our client save costs and minimize downtime.**

A photograph of an industrial robotic arm in a factory setting, performing a welding task. The arm is white and blue, with a bright blue light emanating from the welding point. Sparks are visible as the arm works on a metal component. The background shows a dark industrial environment with some structural elements.

# INSIGHTS AS A SERVICE

We juxtaposed data from machines across multiple sites – over months of usage – with near real-time data from individual machines that must be maintained. This helped us to derive insights that generate warning signals and alert managers in case of potential machine failure.

We leveraged our Insights-as-a-Service offering to curate information from machines like the one that must be maintained – from across a wider landscape. For example, we curated four million failure ticket records from over 8,500 ATMs to develop, train, and test a machine learning model for predicting ATM failure in North America.

The color-coded dashboard helped the maintenance team review notifications, service calls, and failure patterns over time periods, cities / states, and model types.

# MACHINE LEARNING TO PREVENT MACHINE FAILURE

Service-level guarantees  
with up to

**99%**  
machine availability

Up to **18%**  
reduction in costs of  
unwarranted preventive  
maintenance and repair

**14.3%**  
increase in operational  
efficiency

**60 milliseconds**  
to predict ATM faults  
with  
**80% accuracy**

**WE DID THIS FOR  
THEM. WE CAN  
DO IT FOR YOU.**

Find out more about  
how Infosys can  
make blockchain  
work for your  
business by reaching  
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