CASE REFERENCE · FINANCIAL SERVICES

A financial services provider

Microsoft

A financial services provider	Financial Services	Design · Develop	
CLIENT	INDUSTRY	DELIVERED AS	• ESP microcontroller • MQTT • Azure • Azure AI

MODERNISING APPS WITH AZURE AI & IOT

Bringing home-office inverters into view with IoT and AI

A low-cost device that retrofits to home-office inverters and, with generative AI on top, gives a financial services firm a live view of agents' backup power and battery health.

01

THE CHALLENGE

Our client runs a remote call-centre workforce and equips agents with backup power at home. The problem was visibility: with no insight into the health of those home inverters, there was no way to know which agents were about to lose power or which batteries were failing.

02

THE APPROACH

We designed a bespoke, low-cost IoT device that retrofits to most home and home-office inverters with very little physical intrusion. It reads battery voltage and current and sends the data to a cloud reporting platform at regular intervals. From the fluctuations we derive useful things: whether an agent has power by comparing against local outage schedules, a single view of each agent's home equipment, and battery health from charge and discharge patterns against the expected maintenance schedule. Built around a low-cost ESP microcontroller, it was designed as a proof of concept for a larger rollout, and generative AI sits over the collected data to surface outliers and trends.

03

THE OUTCOME

The client now has cloud-based visibility of inverter status and health across its remote workforce, on hardware that retrofits to what agents already own. Generative AI turns the raw readings into insight, flagging outliers and predicting maintenance before a battery quietly dies.

04

SUMMARY & BENEFITS

- ✓ Cloud visibility of status and health for home-office inverters.
- ✓ A low-cost device that retrofits to existing inverters.
- ✓ Generative AI surfaces outliers and predicts maintenance.

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