

# **AI-Driven Transformation** in Customer Request Handling for a **Global Utility Leader**

# Client Overview

One of our largest global utility clients, is a leading energy company with operations spanning the United States and the United Kingdom. The company plays a critical role in delivering electricity and natural gas to millions of customers, ensuring reliable and efficient energy distribution. Client is committed to innovation and sustainability, continuously seeking ways to enhance operational efficiency and customer experience. As part of their strategic vision, they initiated a comprehensive Digital Transformation program to embed intelligence into their business processes across the enterprise.

# **Problem** Statement

One of the challenges the client was facing is managing "Leave it on for Landlord" (LOFL) requests due to a heavily manual process. Requests were submitted in diverse formats, including free-form emails, filled forms, and handwritten documents, leading to inconsistencies and misinterpretations. Inexperienced professionals often struggled with understanding these requests, resulting in errors and delays. The lack of automation hindered the ability to handle high volumes efficiently, increasing operational costs and reducing productivity. These issues adversely affected service quality and customer satisfaction, undermining client's goal of providing exceptional service in the competitive utility industry. Addressing these challenges was crucial for enhancing operational efficiency and customer satisfaction.



### Solution

Our in-depth industry knowledge, coupled with strong expertise in the latest technologies, uniquely positioned us to be part of the client's global digital transformation program. To address the challenges in managing "Leave it on for Landlord" (LOFL) requests, we designed a scalable cloud-based AI solution that combines classic AI and advanced GenAI technologies.

- Data Extraction Solution: Developed a robust data extraction solution built on top of Azure OpenAI's GPT vision model. This solution efficiently processes various formats of customer requests, including free-form emails, filled forms, and handwritten documents.
- Preprocessing Scanned Forms: Leveraged the GPT model to preprocess scanned application forms containing handwritten information. The model accurately extracts key details such as account numbers, addresses, and customer names, significantly reducing manual effort and errors
- Intent and Sentiment Analysis: Utilized the GPT-4 model to analyze the content of emails for intent and sentiment identification. This advanced capability ensures that the system correctly interprets customer requests, improving response accuracy and speed.
- Integration with Downstream Systems:
   Seamlessly integrated the extracted data into
   National Grid's downstream mainframe
   application. This integration enables the
   automated initiation of processes, ensuring that
   customer requests are handled promptly and
   efficiently.
- High Automation with Human-in-the-Loop:
   Achieved high levels of automation while maintaining a human-in-the-loop approach to ensure accuracy. This hybrid model allows for human oversight to handle exceptions and validate the system's output, ensuring reliability and trustworthiness.



### **Business** Outcomes:

The implementation of our advanced Al-driven solution brought about transformative changes for the client. By leveraging cutting-edge GenAl technologies, we addressed critical inefficiencies in their customer request handling process, particularly for "Leave it on for Landlord" (LOFL) requests. Our solution not only streamlined operations but also set a new standard for accuracy, efficiency, and customer satisfaction.

- Improved User Experience: Enhanced the customer journey by providing quicker and more accurate responses, significantly improving overall satisfaction.
- Consistent Data: Ensured uniform and reliable data across all systems, reducing discrepancies and enhancing data integrity.
- Time and Cost Savings: Reduced operational costs and saved significant time through the automation of manual processes, boosting efficiency.
- Reduced Manual Efforts: Minimized the need for manual intervention, allowing staff to focus on higher-value tasks that contribute more directly to the company's strategic goals.
- Compliance and Data Integrity: Maintained regulatory compliance and upheld the highest standards of data integrity, safeguarding the company from potential legal and financial repercussions.
- **Scalability:** Adapted to changing data requirements without compromising accuracy, ensuring the solution can grow and evolve with the business.



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