

# Business Requirement Document (BRD)

Project Title: AI Chatbot to Reduce Customer Support Costs

Prepared By: [Your Name]

Date: 24 June 2025

## 1. Executive Summary:

The purpose of this project is to reduce high operational costs incurred from helpdesk calls, each costing approximately AUD 20 for 10 minutes. With over 500 calls per weekday and 100 on weekends, this results in significant expenditure. The proposed solution is an AI-powered chatbot that will address customer queries using internal data and documents, reducing the volume of calls to human agents.

## 2. Business Goals:

- Reduce customer support operational costs by at least 60%
- Automate common and repetitive support queries
- Provide 24/7 assistance through the chatbot interface
- Improve customer experience and reduce wait times

## 3. Current Challenges:

- High cost per support call
- Limited support hours and scalability
- Increasing call volume without matching increase in staff
- Inefficiency in handling repeated or simple queries

## 4. Proposed Solution:

Implement an AI chatbot that uses Retrieval-Augmented Generation (RAG) with Azure OpenAI and Hugging Face models. Documents such as policies and FAQs are stored in Azure Data Lake Storage and vectorized using Gemini Embeddings and stored in Chroma DB for retrieval. The chatbot answers queries using relevant data, avoiding the need for human interaction in most cases.

## 5. Scope:

- In Scope:
  - Chatbot for handling support queries
  - RAG architecture for intelligent retrieval

- Integration with Azure OpenAI, Chroma, and Gemini
- Role-based access for document visibility
- Logging, monitoring, and analytics using Azure Synapse and Power BI

- Out of Scope:

- Chatbot UI development for web and mobile (existing UI to be reused)

6. Success Metrics:

- Percentage reduction in support call volume
- Cost savings per month
- Chatbot resolution rate
- User satisfaction and feedback

7. Stakeholders:

- Product Owner
- IT Development Team
- QA & Testing Team
- Customer Support Team
- Compliance & Security Team

8. Timeline and Milestones:

- Requirement Finalization: Week 1
- System Design and Architecture: Week 2-3
- Development & Testing: Week 4-7
- Deployment and Monitoring: Week 8