Dubai Reach Scope of Work

Dubai Chambers is embarking on a strategic initiative to empower its members by developing a B2B platform for listing and promoting their products and services.

As a foundational step, an AI-enabled directory, named "Dubai Reach," will be developed first as a Minimum Viable Product (MVP) within a focused 12-week development timeline. This initial phase will serve as a testing ground to refine features and functionalities before a full B2B marketplace launch, planned for 2026.

The scope of the MVP, includes the launch of a desktop and mobile responsive web application that enables buyers to discover Dubai Chambers member companies, suppliers, and their products/services through :

1. **A conversational AI assistant** that accepts natural-language requirements in both Arabic and English and returns ranked supplier and product suggestions powered by advanced AI LLM processing
2. **The facilitation of business contact** between buyers and suppliers through integrated communication tools and RFP processing via an external partner service
3. **A robust PostgreSQL database architecture** supporting scalable supplier catalog management and application functionality
4. **Enterprise-grade security and compliance** ensuring member data protection and regulatory adherence through Azure AD B2C integration

We are seeking a qualified development partner to build a Minimum Viable Product (MVP) of Dubai Reach, an AI-powered supplier discovery platform for Dubai Chambers members. The solution focuses on core functionality: natural language supplier search and business connection facilitation, delivered within 12 weeks.

Vision & Goals

Vision

To create an interactive, AI-enabled, and value-driven B2B platform that facilitates direct introductions, enables the showcasing of projects and success stories, and allows collaboration on opportunities for Dubai Chambers members.

The enhanced vision includes establishing a scalable, database-driven foundation that supports intelligent supplier matching through AI LLM services, comprehensive analytics through PostgreSQL optimization, and seamless integration capabilities for future marketplace evolution.

Goals

1. **Launch an AI-powered directory within 12 weeks** using an accelerated development methodology

2. **Provide a conversational AI concierge interface** for intuitive supplier discovery with natural language processing capabilities

3. **Facilitate easy meeting booking** between buyers and suppliers, with clear call-to-actions and integrated contact management

4. **Create a rich supplier dataset of Dubai Chambers member information** to power the AI concierge, populated through AI agents from an external partner

5. **Successfully onboard an initial batch of Dubai Chambers members** onto the platform with streamlined onboarding processes

6. **Establish a scalable technical foundation** built on a modern architecture for future evolution into a full B2B marketplace

7. **Ensure verified membership** with robust authentication and compliance with local regulations|

8. Enable a **streamlined, automated RFP process**, delivered through an external partner.

9. **Establish enterprise-grade security, scalability and robust technical architecture** with comprehensive PostgreSQL database infrastructure, AI LLM integration, and intelligent query processing capabilities

Target Audience

Corporate Buyers

Seeking to find local suppliers, partners, or specific products and services through conversational AI. They need efficient discovery mechanisms, comprehensive supplier information, and streamlined communication channels for business development. Corporate buyers could also include Dubai Chambers members seeking suppliers within the network.

Dubai Chambers SME Members (Sellers)

Looking to list and promote their products and services, generate new business leads, and connect with potential buyers through an AI-enhanced platform. They require user-friendly profile management tools, comprehensive catalog management capabilities, and analytics to track their listing performance and engagement metrics.
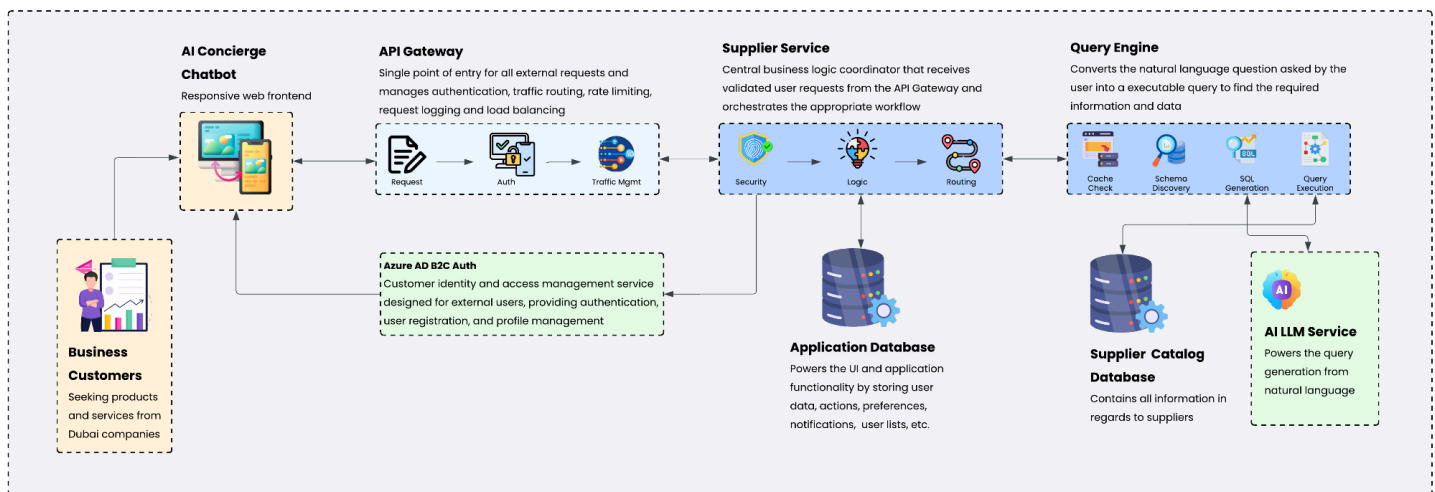
Key User Journey

Conversational Buying Journey

1. **Land on homepage** and immediately engage with AI concierge interface or start typing requirements in natural language
2. **AI processes query** using advanced natural language processing and returns top suppliers with product highlights, relevant facets, and detailed explanation snippets

3. **Buyer refines search** via follow-up questions in chat, with AI maintaining context and providing increasingly relevant suggestions

4. **Buyer explores results** by clicking through to detailed supplier profiles and service catalogs

5. **Buyer finds out more** about specific suppliers by asking follow up questions to the AI concierge

6. **Buyer books meeting with supplier** via booking functionality on-site

7. **Buyer shortlists suppliers** by adding them to a list on the Dubai Reach site

8. **Buyer triggers an RFP** via the site with or without a list of shortlisted suppliers, which generates the RFP and manages the process with minimal interaction

Technical Architecture

Core Technical Components

AI Concierge Chatbot (Frontend)

- **Responsive web frontend application**
  Modern web interface optimized for desktop and mobile devices with intuitive user experience

- **Conversational AI chat interface**

  Natural language search capability allowing users to describe their business requirements

- **Supplier results display**

  Presentation of supplier recommendations with essential business information

- **User authentication integration**

  Secure login/registration flow integrated with Azure AD B2C

API Gateway

- **Single point of entry for all external requests**

  Centralized request routing and management for optimal security and performance

- **Authentication and authorization management**

  JWT token validation and user session management

- **Traffic routing and rate limiting**

  Load balancing and abuse prevention with configurable limits per user

- **Request logging and monitoring**

  Comprehensive logging for debugging and performance tracking

- **Load balancing capabilities**

  Distribution of incoming requests across backend services

Supplier Service

- **Central business logic coordinator**

  Core service orchestrating validated user requests and workflow management

- **Request validation and processing**

  Ensuring data integrity and business rule enforcement

- **Workflow orchestration**

  Coordinating interactions between frontend, databases, and AI services

- **Response formatting and delivery**

  Standardising data presentation for consistent user experience

Query Engine

- **Natural language query conversion**

  Transform conversational queries into executable database operations
- **Cache check functionality**

  High-performance caching system for frequently requested supplier information
- **Schema discovery system**

  Intelligent understanding of database structure and relationships
- **SQL generation and optimisation**

  Automated generation of optimised database queries
- **Query execution with performance monitoring**

  Efficient database operations with response time tracking

AI LLM Service

- **Natural language processing engine**

  Advanced AI service for interpreting and processing user queries
- **Query intent recognition**

  Understanding user requirements and business context
- **Supplier matching intelligence**

  AI-powered recommendations based on business needs and capabilities
- **Response generation**

  Creating conversational responses with relevant supplier suggestions

Database Infrastructure

Application Database

- **User data and session management**

  Storing user profiles, preferences, and authentication information
- **User actions and interaction tracking**

  Recording user behavior and platform engagement metrics

- **Notifications and communication logs**

  Managing user notifications and communication preferences

- **System configuration and settings**

  Platform settings and administrative configuration data

Azure AD B2C Authentication

- **Customer identity and access management**

  Enterprise-grade authentication service for external users

- **User registration and profile management**

  Secure account creation and profile maintenance capabilities

- **Authentication flow integration**

  Seamless login experience with token-based security

- **Security and compliance**

  Enterprise-level security standards and regulatory compliance

Success Metrics

- **Communication Initiation Rate ≥20%**

  Buyer sessions that result in actual supplier contact as the is a core business outcome of connecting buyers with suppliers.

- **Search Result Relevance ≥80%**

  AI chat suggestions rated "relevant" or better for common business queries and proves the AI actually works and provides value to users

- **Member Onboarding ≥30%**

  Eligible Dubai Chambers members onboarded to measure adoption.

- **Query Response Time <5 seconds**

  All search queries return results within 5 seconds as speed determines if users will stay or abandon the platform.

- **Platform Uptime ≥95%**

  System availability during testing and initial operation as users need to be able to access the platform.

Technical Requirements

Performance Requirements

- Sub-5-second response times for all search queries
- Support for 50+ concurrent users
- 95% uptime during testing and initial operation
- Efficient database query optimization
- Intelligent caching for frequently accessed data

Security Requirements

- Enterprise-grade authentication via Azure AD B2C
- Secure API endpoints with proper authorization
- Data encryption at rest and in transit
- Protection against common web vulnerabilities
- Secure session management and token handling

Scalability Requirements

- Cloud-native architecture supporting horizontal scaling
- Database optimization for growing supplier catalog
- Efficient caching strategies for improved performance
- Load balancing across multiple service instances
- Monitoring and alerting for proactive issue resolution

Deliverables & Documentation

Application Deliverables

- All services and components in technical architecture including;
    - Complete responsive web application
    - Integrated AI-powered search functionality

- ○ User authentication and profile management
- ○ Supplier discovery and contact system
- ○ Administrative tools and monitoring
- Code repository with full codebase and with properly annotated code

Technical Documentation

- System architecture documentation
- API documentation with endpoints and examples
- Database schema and relationship diagrams
- Deployment and configuration guides
- End to end test case documentation
- Monitoring and maintenance procedures

User Documentation

- User guide for buyers and suppliers
- Administrative user manual
- Troubleshooting and support documentation
- Training materials and video guides