

PWA Architecture & Flow Overview

System Components:

1. User Interface:

- Toggle between Minimal and Modern Settings UI
- Biometric login (WebAuthn), session control, secure API entry
- Multi-agent persona switcher in dashboard

2. State and Storage:

- Zustand for state management
- Encrypted IndexedDB using WebCrypto for sensitive settings

3. Azure AI Integration (Mock/Live):

- Promptflow orchestration
- OpenAI-based LLMs
- Vector DB agent memory (simulated)

4. Authentication:

- Microsoft Entra ID (OAuth2)
- 2FA, MFA, and optional WebAuthn
- Device trust registration

5. API Layer:

- Azure Functions (validate keys, persist settings securely)

- Role-based access via headers and tokens

6. PWA Infrastructure:

- Vite + vite-plugin-pwa
- Workbox for offline caching and background sync
- Installable on Android/iOS via manifest

7. CI/CD:

- GitHub Actions workflow for build, lint, test, deploy
- Auto-deploy to Azure Static Web Apps or Blob

Compliance & User Control:

- Settings import/export
- Session timeout control
- Biometric device listing
- Internationalization (i18n) ready