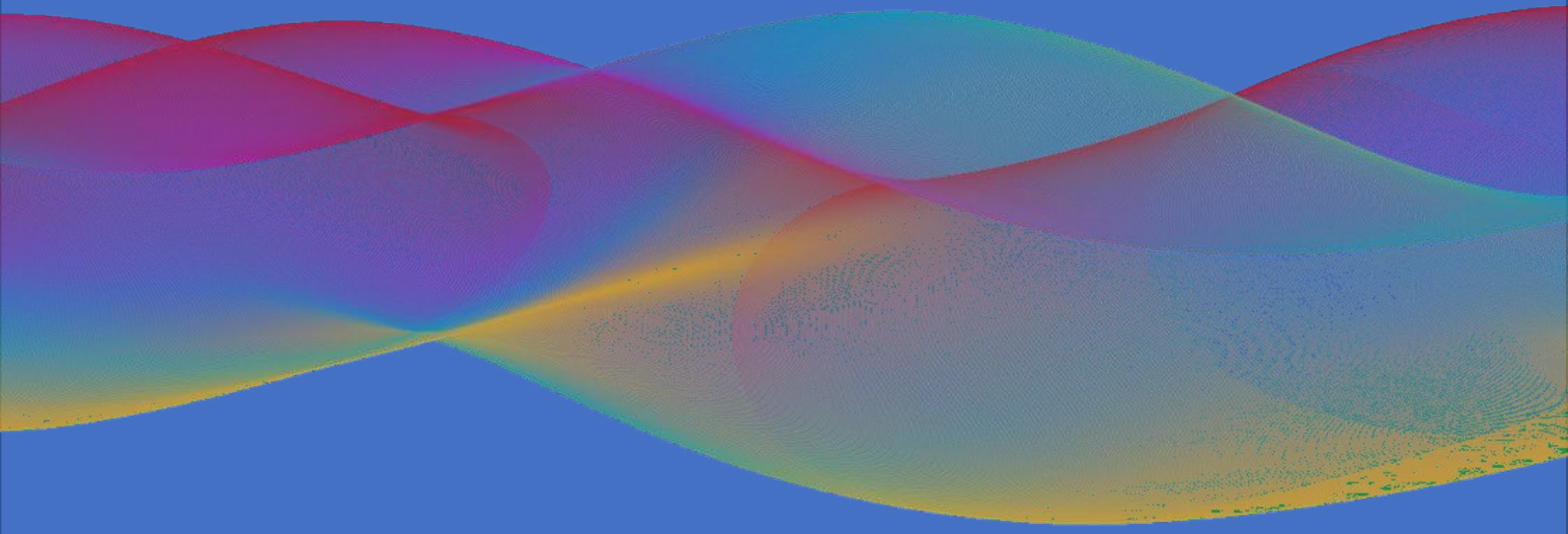
ContractPodAi®



CPAi High Level Application Architecture

Version No:2.1

Client Name: All clients using CPAi

ContractPodAi

AMAT VICTORIA CURAM

Disclaimer

The information provided by ContractPodAi in this document is for general informational purposes only. All information in this document is provided in good faith and knowledge. However, we make no representation or warranty of any kind, express, or implicate, regarding the accuracy, adequacy, validity, reliability, availability, or completeness of any information in this document.

The information contained in this document is confidential, privileged, and only for the information purpose of the intended recipient and may not be used, published, or redistributed with anyone without the prior written consent of ContractPodAi Technologies Ltd. The opinions expressed are in good faith and while every care has been taken in preparing this document. ContractPodAi Technologies Ltd. makes no representations and gives no warranties of whatever nature in respect of this document, including but not limited to the accuracy or completeness of any of the information, facts, and/or opinions contained therein. ContractPodAi and its subsidiaries, the directors, employees, and agents, cannot be held liable for the use of and reliance on the opinions, estimates, forecasts, and findings in this document.

Table of Contents

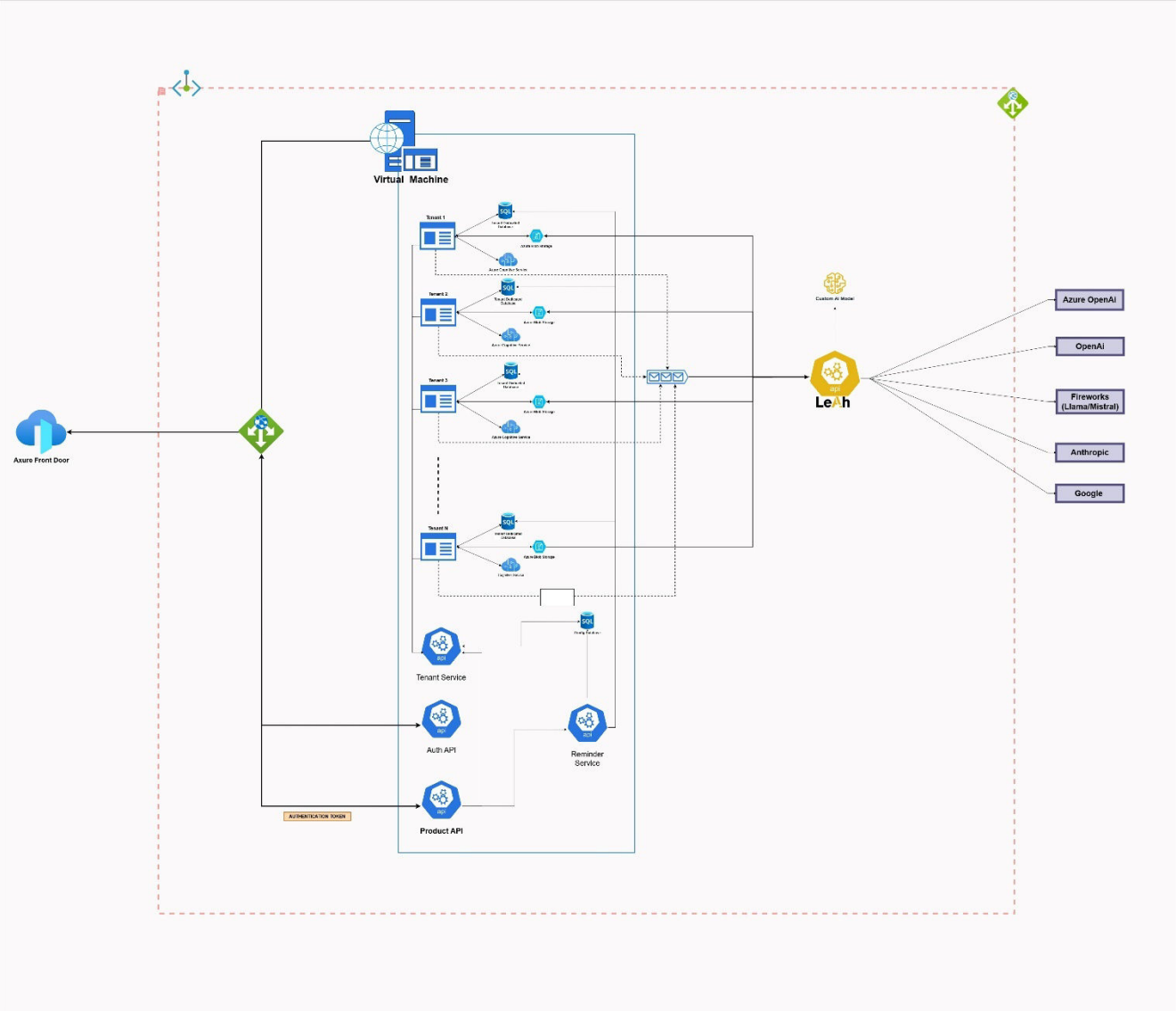
1.0 Background

This document provides high level overview of ContractPod Application Architecture. This document may be referred by ContractPodAi Developers Architects and ContractPod customers.

2.0 Application Architecture

ContractPodAi Application is a multitenant based SAAS (Software-as-a-Service) application, which revolves around Contract Life Cycle Management. It gives end-users the capability of contract management with ease with just a few clicks, few highlights of the application are as follows:

This application diagram outlines the **high-level architecture of the Leah CLM platform** within ContractPodAi, illustrating how it operates within a secure, modular, cloud-based environment, specifically leveraging **Azure infrastructure**.



Ingress & Access Control

- **Azure Front Door** acts as the global entry point, managing secure traffic routing and load balancing.
- Requests are authenticated and authorized through dedicated **Authentication (Auth API)** and **Tenant Service** layers.

Application Layer

- The core application is hosted on **Virtual Machines**, where multiple **tenants** (i.e., client environments) run isolated service components.
- Each tenant has a **dedicated workflow** involving:
    - File intake, processing, and storage.
    - Connections to shared services like **Product API** and **Reminder Service**.

Leah Intelligence Layer

- At the heart of the platform is **Leah**, the GenAI engine. It connects to and orchestrates interactions with multiple Large Language Model (LLM) providers including:
    - **Azure OpenAI**
    - **OpenAI**
    - **Fireworks (Llama/Mistral)**
    - **Anthropic**
    - **Google**

Additionally, our models are fine-tuned to provide legal-focused responses and are mapped to specific modules based on rigorous regression testing with our in-house legal team. This ensures more legally relevant responses. Also, our architecture offers flexibility in LLM sourcing based on client requirements, cost considerations, and data residency compliance.

Key Attributes

- **Multi-tenant & scalable architecture** supporting secure deployments.
- **Flexible LLM integration layer** to allow model orchestration and experimentation.
- Built to support **data privacy, regional hosting (e.g., UAE)**, and **AI-based automation workflows** via Leah.

- It also acts as a Template repository, which allows maintaining a bank of contract templates ready for automation in just a few clicks, and the initial draft is generated.

- Gives the capability to define Clause library, a dynamic library of clauses for dynamic inclusion during contract generation.

- Template generator (ACD) ContractPodAi® Generator allows you to create your own templates for automation.

- Workflow Engine which allows building your own comprehensive flowchart-based stage and approval for end 2 end workflow management process.

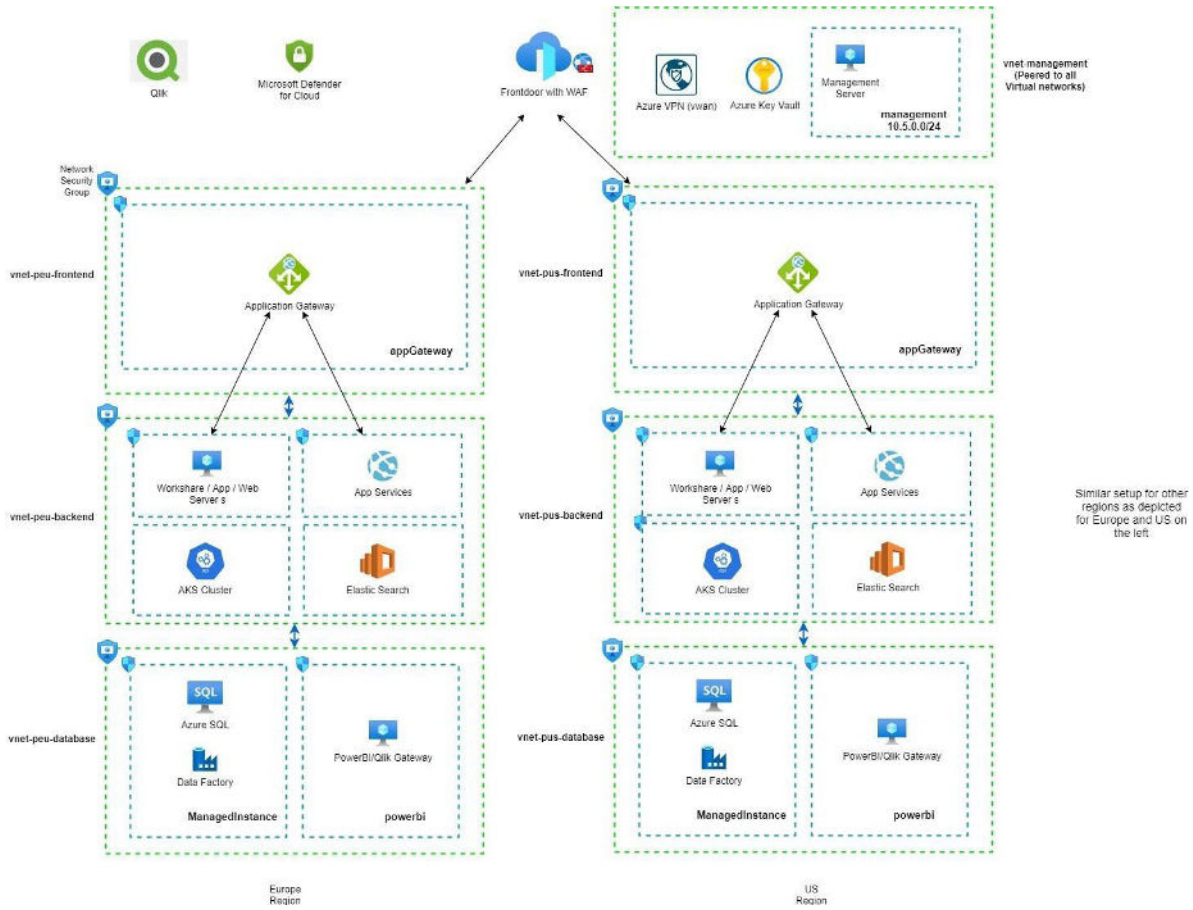
- Version management effectively allows maintaining a complete audit trail of all your contract versions and drafts, with the support of multi-format support Output your contracts in Microsoft Word or PDF at the click of a button.

- Version management effectively allows maintaining a complete audit trail of all your contract versions and drafts, with the support of multi-format support Output your contracts in Microsoft Word or PDF at the click of a button.

- Seamless integration with 3rd Party service (DocuSign, Azure Services, and many others)

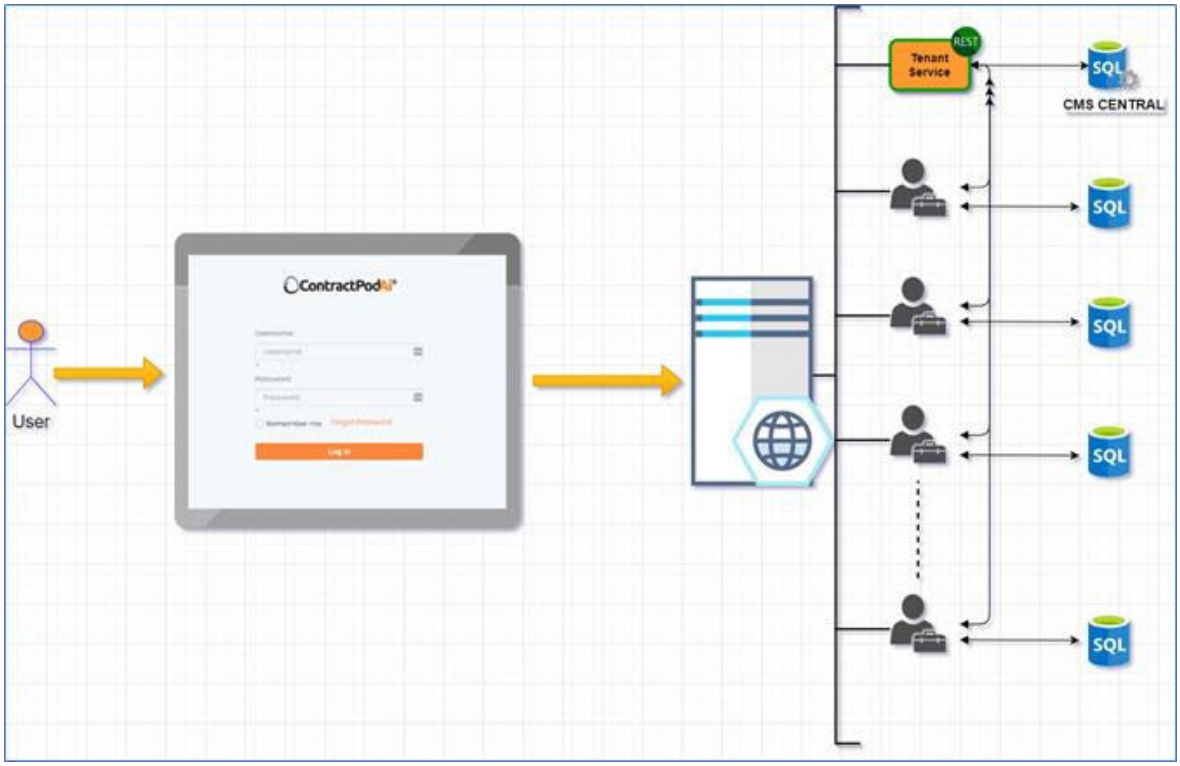
Tenant Provider API	Service which is solely responsible for managing the Tenant specific configuration and features associated with the respective tenant
Reminder API	Service which responsible to handle the reminder defined at the contract level by respective tenant, it also handles the email notification as well.
ACD Service	Service which is responsible for generating the contract document on basis of the contract data provided during the request form against the template defined.
Reporting API	Service which is responsible for the sending the reports scheduled by the end users
Core API's (Restful Services)	Service which has varied amount of API right from contract generation to application master, it can be easily integrated/consumed with any system and is secured via JWT based authentication.
Auth API	Service which allows API consumer to generate the JWT based access token with respect to provided ClientId and ClientSecret, token generated are Audience specific, which can only be used to fetch the data to respective tenant.

3.0 **Infrastructure Design Diagram**



4.0 Multitenant Database Strategy

CPAI is a multitenant application, which has databases categorized as Config Database or Transactional Database.



Config Database

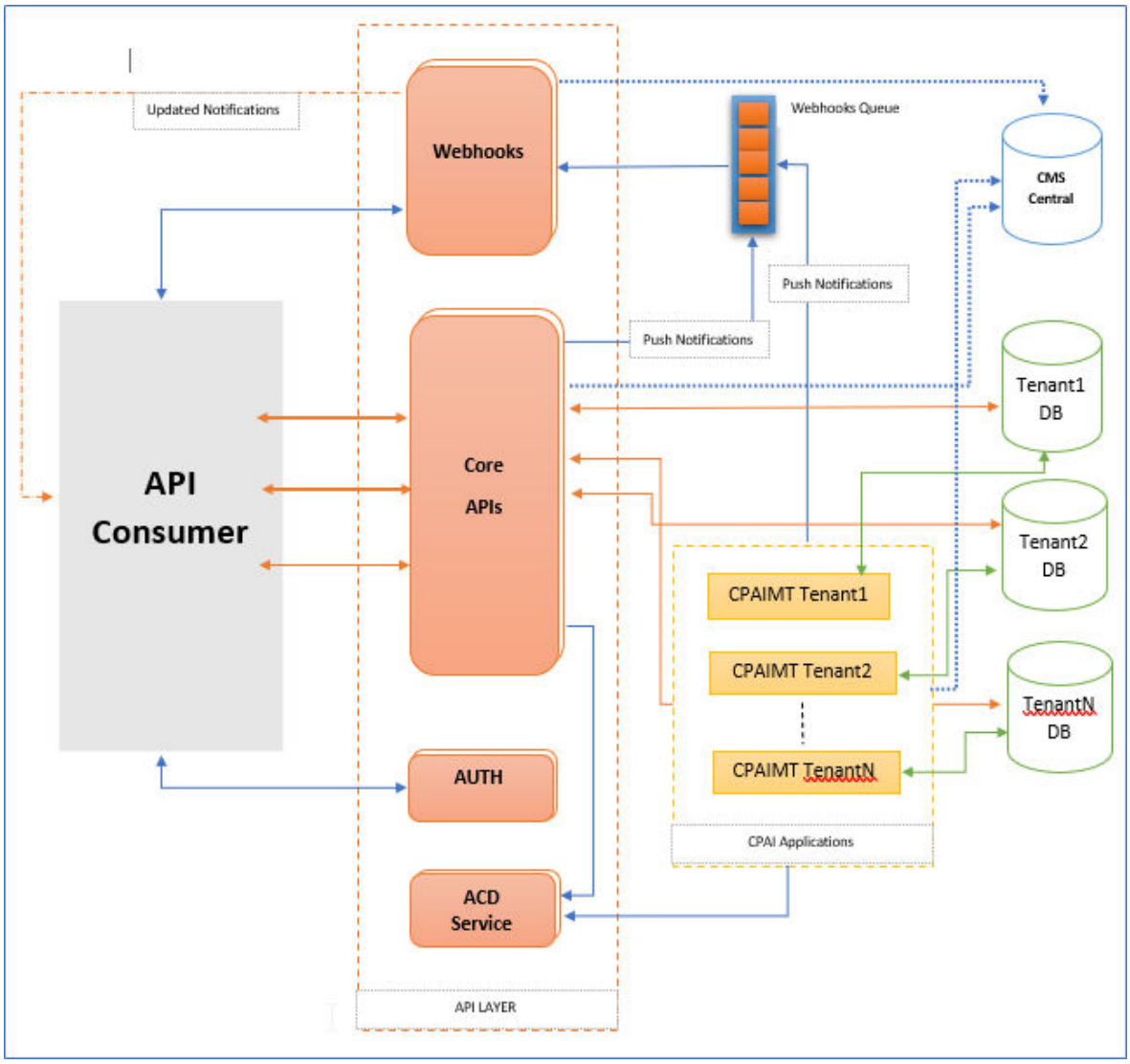
Config database, as part of the initial onboarding process, configuration for every tenant (customer) is maintained in the Subscriber table. This information is consumed by Tenant Provider to enable or disable features for the individual tenants.

Important Tables:

- Subscriber
  - Application URL
  - Tenant Database
  - DocuSign Token
  - BLOB Storage Container name
- Subscriber Features
  - Features for individual Tenant (Subscribers)
- Subscriber Keys
  - ClientId and ClientSecret for individual clients to consume Core API's
- Subscription
  - No. of users and tenant start and expiry date configuration

Core APIs

Core APIs are developed with the intent of support in a multitenant approach, as the tenant context has been defined on the basis of the URL and later the same context is used to derive the DB connection with the respective database dedicated with the Tenant. Also, the above diagram depicts and showcases how the CPAI and APIs use the same business layer and makes the application as API enable.



5.0 **Integrations**

Following is a listing of the integrations / touchpoints that are currently supported by ContractPodAi.

a. File Service Integrations:

These integrations are based on a Feature flag and are enabled / disabled as per the requirement.

1. Google Drive
2. OneDrive
3. Dropbox
4. Box
5. Net Documents

b. Email Service Integrations:

These integrations are based on a Feature flag and are enabled / disabled as per the requirement.

1. Outlook Calendar Sync
2. Google Calendar Sync

c. E-Signature Platforms:

This type of integration is required for the E-Signature Process

1. DocuSign
2. AdobeSign
3. Signicat

d. Collaboration Providers:

This type of integration assists the users to Collaborate on a Contract Document

1. Zoho
2. Word Online
3. Google Docs

e. Document Service Integrations:

This type of integration gives the user the ability to compare different versions of Contract Documents, Collaborate on the Contract document or sync the Contract Document based on the use case:

1. Workshare Compare
2. Google Docs

f. Search Services:

1. Azure Cognitive Search
2. Elastic Search

g. AI Services:

1. Zuvaa
2. In House (Internal Regex Service)
3. Leah

h. Logging / Monitoring Services:

1. Sentry

i. Translation / OCR / Conversion Services:

1. Localize
2. Abbyy
3. Spire
4. Fixer

j. Message Queuing Services:

1. Azure Service Bus
2. RabbitMQ

k. Data Visualization Services:

1. PowerBI
2. Deepsights
3. Qlik

l. Salesforce:

ContractPodAi offers a seamless native-app experience in Salesforce CRM, using a Managed Package.

m. Add-ins / External Plugins:

These are standalone plugins that could be installed manually by the user or installed from the Appstore / Marketplace

1. Microsoft Office Plugins:
    a. Word Add-in
    b. Outlook Add-in
2. Google Workspace Add-ons:
    a. Gmail Add-on
    b. Google Docs Add-on

Microsoft Office Plugins:

ContractPodAi has Microsoft Office plugins through Microsoft AppSource / Store that integrate with Office applications such as Microsoft Word and Outlook.

https://learn.microsoft.com/en-us/office/dev/add-ins/overview/office-add-ins

The plugins are governed by basic Microsoft Plugin security and Privacy principles. These are listed here:

https://learn.microsoft.com/en-us/office/dev/add-ins/concepts/privacy-and-security

The following plugins are delivered through Microsoft AppSource / Store:

1. ContractPodAi for Word - Microsoft Word Plugin
2. ContractPodAi for Outlook - Microsoft Outlook Plugin

Google Workspace Add-ons:

ContractPodAi has Google Add-ons which are customized applications that integrate with Google Workspace applications such as Gmail and Google Docs.

Google Workspace Add-ons internally makes use of Card Service such that the components can be rendered on the Google Workspace applications in an Iframe but through the Apps Script server

https://developers.google.com/workspace/add-ons/overview

The plugins are governed by basic Google Workspace API security and Privacy principles. These are listed here:

https://developers.google.com/workspace/guides/auth-overview

The following plugins are delivered through Google Workspace Marketplace:

1. ContractPodAi for Gmail - Gmail Plugin
2. ContractPodAi for Docs - Google Docs Plugin

The plugins (both Microsoft Office Add-ins and Google Workspace Add-ons) internally call ContractPodAi platform APIs. Security Features for the Platform API':

1. Secured Http API's and with HSTS enabled.
2. Secured with Certificates and authentication Tokens.

The ContractPodAi platform APIs is hosted with Azure Front door Service on a regional location.

n. Messaging Platform Integrations:

1. Teams App
2. Slack App

o. Single Sign On (SSO):

1. Azure AD
2. Okta

p. Middleware Platform:

Connectors created for various 3rd Party Client Integrations using Jitterbit as an intermediary platform which internally would call ContractPodAi platform APIs:

1. Archer
2. Coupa
3. ERecruit
4. Great plains
5. HRA
6. Hubspot
7. JDE
8. JIRA
9. Kissflow
10. Microsoft Dynamics
11. NetDocuments
12. NetSuite
13. Oracle
14. SAP
15. SAP Ariba
16. SAP S4H
17. SharePoint
18. SuccessFactors
19. Workday