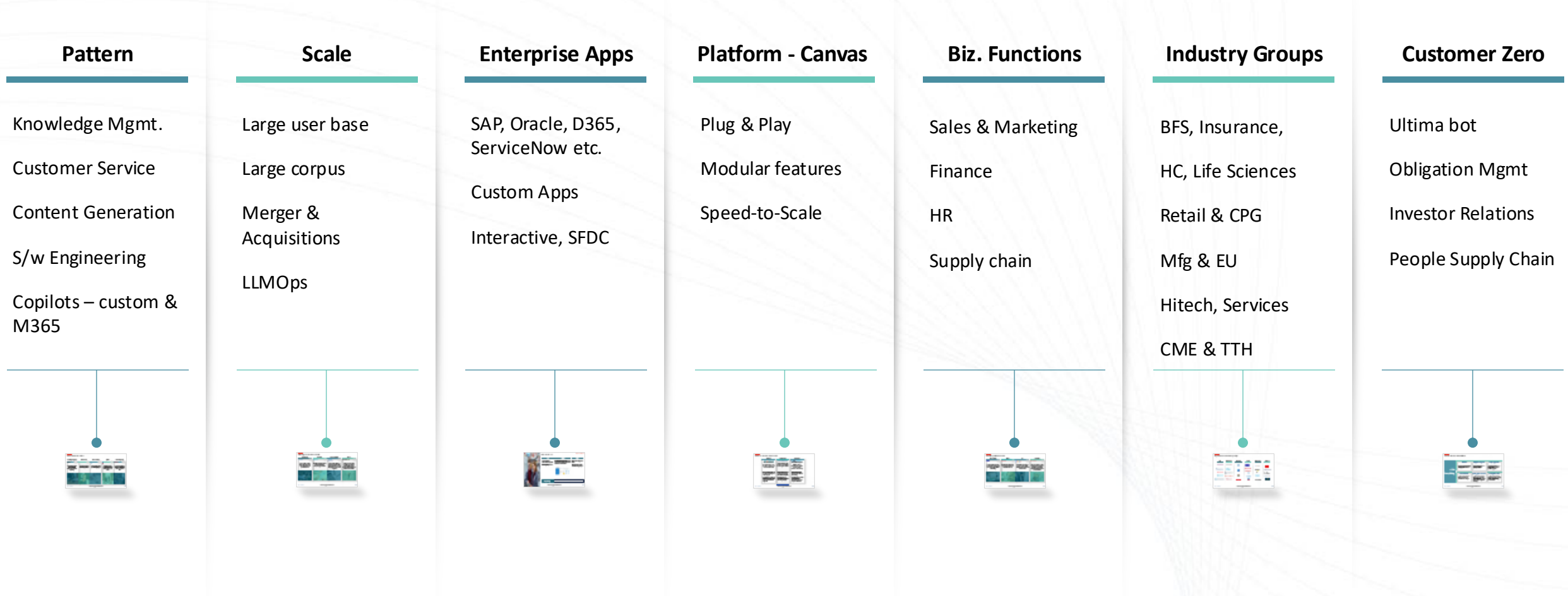




# Enterprise AI / GenAI

*July 12, 2024*

# What kind of GenAI case studies do customers want to see





*Getting to the  
future, faster.  
Together.*

# Pattern based GenAI solves

## Knowledge Management

**Deloitte.**



Compliance Officer Copilot for comparing global policy documents with internal compliance doc version to detect policy changes



## Customer Service

**Computershare**



Customer Care Operators bot to deliver seamless experiences for customer enquiries and FAQs



## Content Generation



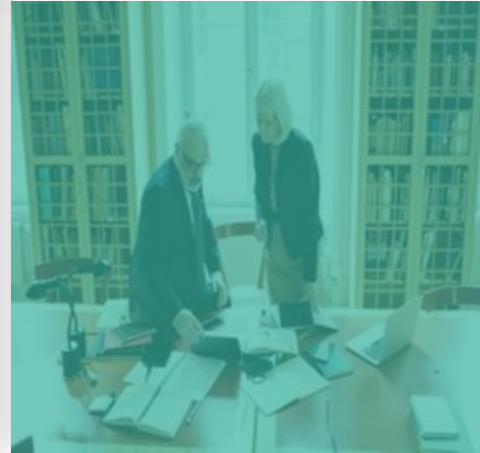
Product Design CoPilot helped improved marketing designs for Unilever products



## Copilots



Enabled Corporate Affairs Attorneys/Analysts to find claims quickly that have been substantiated in past & re-use evidence



## Software Engineering

**HONDA**



Leverage GenAI to mitigate risks that were never mitigated before and accelerate SDLC areas that could never be accelerated before



# Delivering GenAI outcomes @ scale

## Large user base



Q&A Bot for DHR, GDS, DFAM business policy enquiry content, search on financial, audit and operations documents



## Large corpus



Financial Research Co-Pilot focused on Increased Productivity & Accuracy leveraging Generative AI



## Merger & Acquisitions



Requirement BOT which aims to parse through product/state filings PDF documents and create an excel configuration for DuckCreek product configuration



## LLMOps



Building a secure and scalable ModelOps (MLOps / LLMOps) Platform which incorporates responsible & ethical AI principles to enable Data Science activities



# Functions specific GenAI solves

## Sales & Marketing



Marketers Copilot for automating personalized email campaign scripts across various media like LinkedIn, Email and blogs



## Finance



Credit Risk Officer Copilot to assess external corporate accounts docs and alert risk of loan asset



## HR



Mental Health Analysis of agents answering 911 calls with audio classification, sentiment analysis and emotion detection



## Supply chain



AI driven SmartAssist for SAP - Ticket is routed to the correct assignment group (first time), capturing the necessary information to commence work on the solution



# Key customers across Industry Groups

## BFS

Computershare

JPMorganChase

Santander

MERCER

WORLD BANK GROUP

## Insurance & HC

TRAVELERS

Affac.

AssuredPartners  
GM INSURANCE BROKERS

Johnson & Johnson

Lincoln  
Financial Group

## Retail & CPG

Unilever

P&G

7  
ELEVEN

Campbell's

## Mfg & EU

Carrier

Honeywell

HONDA

PGE

UNHCR  
The UN Refugee Agency

Chevron

## Hitech, Services

Google

Deloitte.

EY

CISCO

AUTODESK

## CME & TTH

Sabre

Paramount

The  
WALT DISNEY  
Company

DELTA  
AIR LINES

LUFTHANSA

# Canvas.AI – customer success stories

## Plug & Play



Global Semiconductor Producer

Risk advisor bot to assess risks for new projects and recommend resolution

- **Business Problem:** Manual discovery of risks associated with new projects taking long time of senior management
- **Our Solution:** Gen AI solution for R&D unit to analyse risks across lifecycle for any projects and also provides recommendations to mitigate risks

## Modular features



American Semiconductor Supplier

Model Result Evaluation for tech support chatbots

- **Business Problem:** Manual testing of LLM response against expecting results taking long time and involved subjectivity
- **Our Solution:** Canvas.ai automated the model result evaluation with objective scores and removing subjectivity

## Speed-to-Scale



International Finance Corporation

Building real time knowledge conversations, co-create project documents and summary

- **Business Problem:** Finding information from enterprise document repo is tedious and time consuming
- **Our Solution:** Canvas.ai enabled RAG based chatbot to accelerate retrieval of information including content for reports and documents

[canvasai.ltimindtree.com](https://canvasai.ltimindtree.com)



# Our LTIM Customer Zero Initiatives

AI in  
Everything »»

## Ultimabot

- Enterprise search solution for all our knowledge assets and chatbot for helpdesk enquiries

## Obligation Management

- Contractual Compliance & governance automation
- Tracking legal obligations

## People Supply Chain

- Automated prescreening
- Intelligent Profile mapping and recommendation
- Candidate engagement

## Investor Relations

- Earning report and transcript automation or our earnings call

## Earnings Report Generation

- Earnings report transcript from factual data (historical, competitors, market and guidance)
- Positivity analysis for right tone of the message

## L&T Cognitive services

- Transform EPC operations (tendering, contract, design engineering, execution, & support function)
- More than 60 cases



**Thank You!**

# Integrating ChatGPT with Enterprise Data



Ask	Our work	Results
<p>The organization faces a significant volume of help desk inquiries encompassing a wide array of topics, including HR policies, financial procedures, travel guidelines, and beneficiary funding. The client seeks to enhance the efficiency of their helpdesk operations and ensure seamless experiences for both beneficiaries, volunteers and agents.</p>	<p>Integrate the business data hosted on SharePoint using GenAI for performing various operations like querying, searching, summarizing and comparing the different documents.</p> <p>Built a ChatGPT like experience with Azure Open AI and Azure Cognitive Services to enhance the customer experience.</p> <p>Leverage the NLP capabilities like semantic search, summarization, to ease self serve for helpdesk agents and volunteers.</p> <p>Implement prompt engineering for achieving the tasks in a precise way</p>	<p><b>25%</b> increased beneficiary services for refugees</p> <p><b>45%</b> helpdesk ticket reduction</p> <p><b>30%</b> manual effort reduction to service a request</p>
<b>Tools / Technologies</b>	Azure Open AI GPT 3.5 Turbo /GPT 4   Prompt Engineering	

# Compliance CoPilot to compare policy documents

## Ask

Deloitte needs to frequently update its policy documents to be in sync with the changes occurring in multiple external sources. Current process is manual, using a file comparison tool that highlights the differences along with justifications. Deloitte is concerned with the accuracy of results and sensitive of the time spent on this.

## Our work

Proposed solution, based on Generative AI, uses advanced document pre-processing, chunking and prompt engineering techniques to compare documents and provide better justifications.

Solution also analyzes the coverage of topics, highlighting sections which are covered and not covered in the policy document. Automated data pipelines eliminate manual intervention to achieve significant savings in human efforts.

## Results

**70%**  
Reduced manual effort for Audit SME

**25%+**  
Increased operation efficiency

Significantly improved Audit Readiness and client onboarding

## Tools / Technologies

Azure Open AI GPT 3.5 Turbo | text-embedding-ada-002 | LangChain | Text pre-processing, Document chunking, Embedding, Prompt Engineering

# Integrating GenAI capabilities with Operation Manuals



## Ask

Current Global Operations manual spans approximately 1,000 pages and is relatively unstructured, hosted on SharePoint 2013 and includes documents, text, and images to resolve customer queries.

Manually navigating the documents is time consuming, inefficient, tedious and largely depends on agent's prior knowledge. It poses a performance issue for a newly joined agent who is not well versed with system yet.

Target is to build the enterprise grade Chat solution which would enable Global Operations team (800 agents) to efficiently respond to customer queries.

## Our work

Built a ChatGPT like experience with Azure Open AI and Natural Language Processing algorithms(Generative AI - LLM) to accurately understand and interpret user queries and generate accurate responses.

Implement a system with real time content processing, context retention, caching of queries, display response metric, archiving chat history .

## Results

**~15-17%**  
improved Operational efficacy

Completely automated system which efficiently queries the business documents for global operations team.

Maintains the context of conversation while answering the queries. Displays trending topics, past queries for quicker response to queries resulting in better user experience.

## Tools / Technologies

Azure Open AI GPT 3.5 & 4, Azure AI Search

# Financial Research Co-Pilot: Increased Productivity & Accuracy with 70% Savings



Ask	Our work	Results
<p>Fund Research Experts spend between 40-80 hours per report. These reports are consumed by enterprises who are seeking to maximize their investment</p> <p>Most of the research work is manual and customers may not be willing to wait for two weeks for such reports</p>	<p>Boost the productivity of the financial researcher by automating the drafting of the financial research reports using Gen AI's Natural Language Generation capabilities</p> <p>Pre-train the Gen AI models using the previous financial research reports to reflect the human writing style compared to machine-generated reports</p> <p>Leverage Gen AI capabilities for summarizing large source PDFs and generating relevant research report sections</p>	<p><b>50%</b> Reduction in the Manual efforts for the researchers which can be utilized in other important areas</p> <p><b>80%</b> Accurate Rating prediction which will improve the overall efficiency of final report generation</p>
<p><b>Tools / Technologies</b></p>	<p>Open AI GPT 3.0 – Davinci Model</p>	

# Artwork Generation using Stable Diffusion



Ask	Our work	Results
<p>Manual generation of artwork leads to limited creativity and variation in content. Visual/graphic designers face overload and repetitive work due to multiple artwork requests.</p> <p>Brand marketing manager relies on in-house designers or external agencies, resulting in delays and higher costs. Limited bandwidth of designers and costly services of external agencies.</p>	<p>Implement a self-service platform integrated with Stable Diffusion model which will generate high-quality images in various aspect ratio's based on text prompts within seconds for near real-time artwork generation which will enable specific content generation for various use cases.</p> <p>User can customize superimposed editable elements like logos and text as per brand guidelines which will Provide flexibility and editable components and generate artwork without delays.</p> <p>It will Enhance creativity and design ideas and improve efficiency and reduce costs in artwork creation for marketing and other purposes.</p> <p>Empower non-design stakeholders with a user-friendly interface which will Reduce dependency on designers and external agencies.</p>	<p><b>70%</b> Reduction in the Manual efforts for the chefs to create content</p> <p><b>50%</b> Faster time to launch product campaigns</p>
<b>Tools / Technologies</b>		Stable Diffusion   Prompt Engineering   Azure ML Studio   Azure Kubernetes service

# GenAI based Marketing Content Generation



Ask	Our work	Results
<p>To leverage GenAI to automate the creation of compelling marketing content tailored for different platforms, including Email, LinkedIn and Blog Post.</p> <p>To develop comprehensive best practices for marketing content creation on each platform and ensure the content aligns with specific requirement and nuances of each platform.</p> <p>Fine-tune the GenAI model to optimize key elements of marketing content, including Title, Tone &amp; Style, Structure, and Length.</p> <p>Align the GenAI output with the established best practices, ensuring content effectiveness and resonance with the target audience.</p>	<p>Designed and Developed an end-to-end application for generating marketing content based on the user inputs.</p> <p>Implemented an automated Q&amp;A generation module to dynamically collect relevant information for enhanced content context.</p> <p>Leveraged Prompt Engineering techniques to customize Large Language Models for optimal performance in different Mediums.</p> <p>Implemented RAG (Retrieval-Augmented Generation) to extract additional information from user-uploaded document.</p> <p>Developed SAM template and Shell scripts for streamlined resource allocation.</p>	<p><b>~40%</b> Writing cost reduction vs traditional writing owing to automated faster content creation</p> <p><b>~10%</b> Increase in platform (Email, LinkedIn and Blog Post) traffic with higher quality content</p> <p>Better alignment to brand guidelines, strategy by effective use of company knowledge</p>
<b>Tools / Technologies</b>	AWS Lambda   AWS Bedrock   AWS S3 bucket   AWS ECR   DynamoDB   Claude V2.1, Jurassic 2 Ultra, Titan Embeddings G1 - Text	



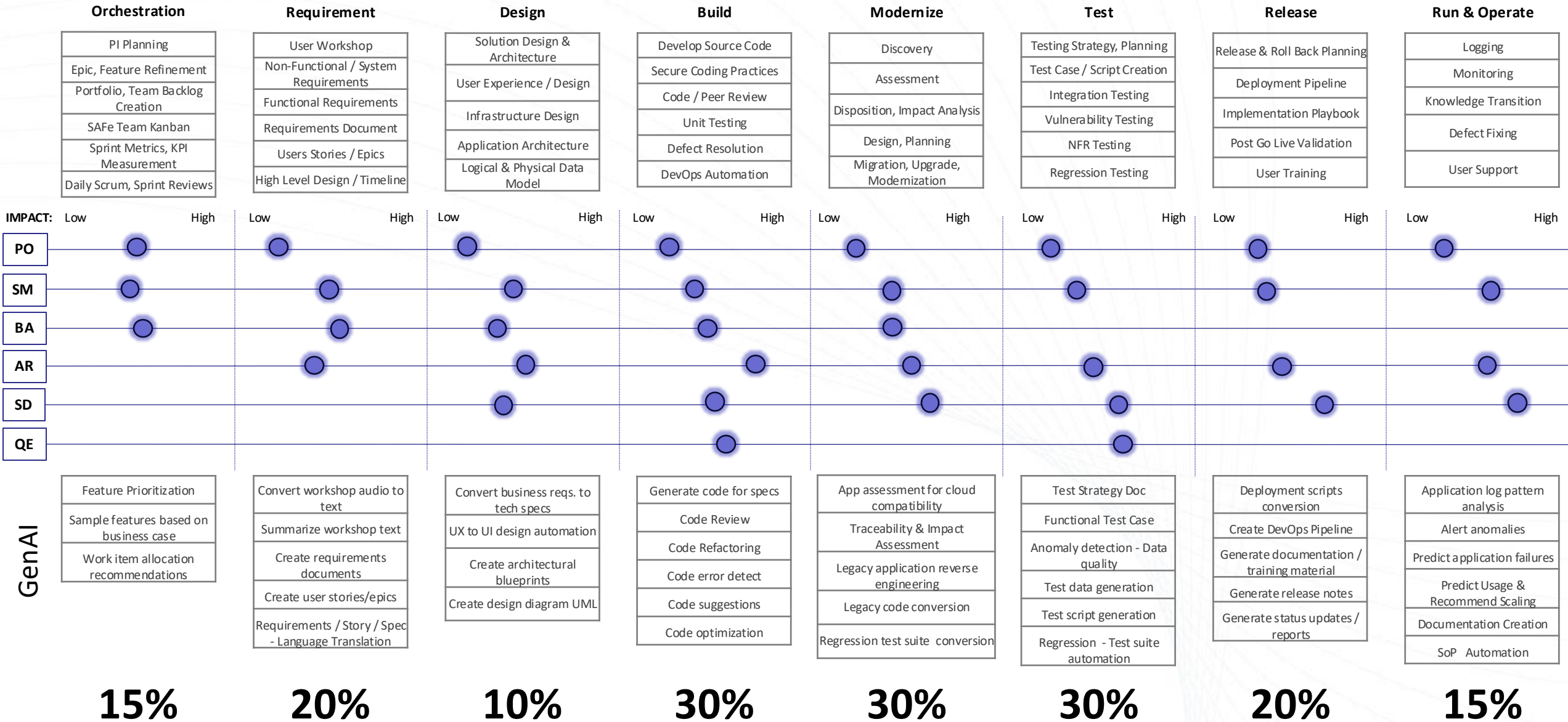


# Enabled Corporate Affairs Attorneys/Analysts to find past 'claims' quickly that have been substantiated & re-use evidence



Ask	Our work	Results
<p>Analysts spend time reviewing requests (e.g: press releases, CEO messaging, website content, branding etc) that have been worked in the past. There was no easy way to search and review previous substantiated claims.</p> <p>~600 claims - substantiated/yearly</p>	<p>Automate the process to identify if a new claim has been previously substantiated   Eliminate rework of submitting evidence for repetitive claims.</p> <p>AI based semantic search solution using Large Language Model (LLM) to help easily find previously substantiated relevant claims</p>	<p>Increase efficiency in substantiating claims process</p> <p>Reduce time spent on reviewing similar claims</p> <p>Improved persona productivity by allowing users to focus with more attention on new claims</p> <p><b>50%</b> reduction in claims processing time</p> <p><b>9600 hours</b> saved yearly</p> <p><b>\$1.44M</b> yearly savings</p>
<b>Tools / Technologies</b>	Azure OpenAI	

# GenAI enhanced SDLC



# Requirement Bot : Automated Product Filing (A Gen AI Approach)

## Ask

In PSIC, product definition templates are created with the help of Product Filings, Rate files and JIRA/ADO, etc. The objective of this project is to explore creating a Requirement Bot MVP using GenAI solution approach that attempts at automating the product filing process.

To develop comprehensive best practices for product filing to ensure the output aligns with specific requirement , nuances of each product and state.

Fine-tune the GenAI model to optimize key elements of the product filing including value and format of the respective attribute.

## Our work

Stored the insurance policy documents shared by the client in AWS S3, the embeddings for these document were stored in vector DB, AWS Aurora.

Implemented RAG (Retrieval-Augmented Generation) to extract information from the insurance documents.

Leveraged Prompt Engineering techniques to customize Large Language Models for optimal performance for different coverages.

The obtained results are formatted and captured in a structured excel where each coverage and its corresponding attribute value is populated.

Compared different LLMs with rouge score to select the best performing model for this use case.

## Results

### Content Efficiency

Achieved a significant reduction in the time for product filing across different coverages and attributes -> Faster time to consolidate systems.

### Client Feedback

PSIC aims to sell this solution to other Tier 3 insurers and create a niche for them in the DuckCreek product implementation space.

### Future Work

Proven scalability of this GenAI approach, ensuring its viability for scaling up to meet all other states and different coverages.

## Tools / Technologies

AWS SageMaker | AWS Bedrock | AWS S3 bucket | AWS Aurora RDS | Claude Sonnet, Claude V2.1, Jurassic 2 Ultra, Titan Embeddings G1 - Text



# Scalable ModelOps Platform

Ask	Our work	Results
<p>To build unified environment for different AI projects for experimentation and to provide seamless experience for data scientists</p>	<p>Secure and scalable MLOps/LLMOps Platform which enables AI Scientists and Data Scientists to have secure environment for model development, fine-tuning &amp; deployment of models.</p>	<p><b>Faster time to Market</b> Reduced overall time to market of models (Experimentation to deployment) by 20%</p>
<p>Applying standards and guidelines across different projects and improving the model operations.</p>	<p>Scalable AI Ecosystem (Infra &amp; AI Packages) as a service for the projects</p>	<p><b>Reduced Operations cost</b> Reduction in operations cost with centralized model management and operations</p>
<p>Platform to support best practices of ModelOps such as Governance, Security, Auditability and reproducibility</p>	<p>The platform covers tracking, governance, security, model validation, development methodologies, faster production process and model monitoring.</p>	<p><b>Improved Efficiency</b> Best practices followed across different projects and reusable components are available for projects to use.</p>
<p>Advocate Responsible AI principles across the projects</p>	<p>Incorporation of responsible &amp; ethical AI principles as part of platform.</p>	
	<p>Scalable solution to support complete ServiceNow model operations and AI projects in future.</p>	
<b>Tools / Technologies</b>	Azure Open AI   Azure ML   MLFLOW   Azure DevOps   Terraform   Azure Functions   React.js	

# Alert-O-Monitor (AI based EWS)



## Ask

For Banks, one of the key business priorities is detecting problematic clients as early as possible. There is a need of automated solutions to track the credit health of borrowers and for monitoring and assessment of credit portfolios

## Our work

“Alert-O-Monitor” involves end-to-end Management of Early Warning Signals in Banks with AI based capabilities to analyze external/Internal news alerts, generate insights from voice calls, robust business rule Engine of 73+ triggers covering financial and operational KPI’s, giving a 360-degree view to Credit Risk Officer.

LLM/RAG based solution is developed using LangChain Framework, Azure AI Services i.e., Azure AI Search used for creation of knowledge base, chunking and vector database creation, Azure AI Speech and Azure Open AI service to add the Intelligence layer. However, this solution is platform agnostic.

## Results

Detects early warning indicators using AI/NLP and ensures pro-active credit decisions. Apart from qualitative benefits Alert-O-Monitor can provide quantitative benefits by leveraging financial, operational KPI’s.

**25%**  
Reduction in collection effort and cost

## Tools / Technologies

LangChain | Azure AI Search | Azure AI Speech and Azure Open AI

## Customer Voice

“It is an incredible tool to derive insights from Internal and External News/document Triggers which can be of great help to the Bank in monitoring credit portfolios. We will surely be interested in doing a POC with LTIMindtree at the earliest.”

# Mental Health Analysis of agents answering 911 emergency calls



Ask	Our work	Results
<p>Emergency calls from distressed callers calling 911 can get taxing on the agents attending these calls. Urgency of the ask, callers' anxiety and panic, difficulties in understanding, adverse situations and quick-thinking results in increasing stress levels among these agents.</p> <p>This potentially results in lack of concentration, inability to support and at times, depression.</p> <p>Client wanted an automated way to detect rising stress levels among agents, so as to allow them a break or rotation, thus ensuring better mental health and productivity.</p>	<p>Proposed solution was an aggregation of AI/ML and GenAI techniques to perform near-real time call analysis.</p> <p>Advanced AI models were used to identify helpful features from audio (voice) recordings and perform audio classification. Generative AI was employed for speech-to-text transcriptions, text analysis, sentiment analysis and emotion detection.</p> <p>An ensemble of multiple models and techniques resulted in detection of stress levels within or outside threshold limits.</p>	<p>Reduction in stress levels of agents</p> <p>Better shift planning resulting in improved productivity</p> <p><b>10%</b> increase in daily call volume addressed by agents</p>
<b>Tools / Technologies</b>		Google Cloud Platform, Vertex AI   Gemini-pro, text-bison   speech-brain   Audio spectrogram, audio classification, text pre-processing, sentiment analysis, emotion analysis

# SmartAssist for SAP



Ask	Our work	Results
<p>Manual creation of incident.</p> <p>Sufficient incident data to be provided.</p> <p>For common issues help users resolve with on screen guidance</p>	<p>SAP certified Add-On to analyze error on screen and using a RAG and External search provide a solution</p> <p>Help users directly raise an incident with all error details and attachments to avoid back and forth.</p>	<p><b>30%</b> on screen resolutions helping users to self solve</p> <p><b>5X</b> reduction in incident back and forth due to insufficient data given by users.</p>



Tools / Technologies	SAP, OpenAI, Content Sphere
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# SmartAssist for SAP

**Ticket is routed to the correct assignment group (first time), capturing the necessary information to commence work on the solution**

- AI driven
- Self Learning
- User awareness and FAQ embedded
- Problem Management identification
- Smart Routing of Tickets

