Vehicle Recall

The solution is a comprehensive approach to digitize and streamline the Safety & Recall Management system for an automotive company. It combines data analytics, customer care, and omnichannel communications to create a robust platform for vehicle safety and recall management. Built on Microsoft Azure and integrated with Microsoft Dynamics 365, the solution utilizes data analytics, Azure AI, Azure Machine Learning, and automation to provide real-time insights, manage recalls, improve customer service, and ensure compliance with regulatory requirements. The platform captures safety alerts from various data sources, processes them for issue detection, and integrates seamlessly with customer care functions to improve operational efficiency and customer satisfaction.

Challenges

- **Complex Data Integration:** The system needs to handle data from diverse and multiple sources, including trucks, cars, and buses, with varying formats and systems.
- **Alert Detection and Safety Risk Identification:** Identifying and assessing safety-related issues from incoming alerts based on defined thresholds and filters is a complex task. Synchronizing alerts that are converted to cases for further investigation.
- **Compliance with Regulatory Reporting:** Ensuring that all safety and recall data is reported accurately and on time to avoid penalties.
- **Improving Operational Efficiency:** Automating manual workflows and reducing the time taken to process safety issues and claims while maintaining high customer service standards.
- **Data Security and Governance:** Safeguarding data while ensuring proper synchronization and compliance with governance rules.

Offering

- **Safety Data Analytics Infrastructure (SDAI):** Leveraging Microsoft Azure's data platform (Azure Data Lake, Azure Data Factory, Azure AI & Azure Machine Learning) to capture, process, and analyze alerts from multiple vehicle data sources for issue detection.
- **Customer Care & Omnichannel Communication:** Using Microsoft Dynamics 365 Customer Service to manage case workflows, knowledge management, and real-time collaboration, along with AI-driven insights to enhance customer care.
- **AI and Automation:** Automating workflows, providing AI-based case recommendations, and reducing manual processes to enhance productivity and issue resolution time.
- **Regulatory Reporting Compliance:** Ensuring compliance with various recall and safety reporting requirements such as Safety Defect Reports, Foreign Recall Reports, and Owner Notifications.
- **Warranty Management:** Automating warranty claims processes, including claim entry, adjudication, and supplier recovery, with significant cost reductions and improved efficiency.

Outcomes

- **Improved Operational Efficiency:** Streamlined workflows and automated processes have led to faster issue detection and resolution, reducing operational bottlenecks.
- **Increased Customer Satisfaction:** Enhanced customer care capabilities, with omnichannel engagement and AI-driven support, have improved customer experiences.
- **Cost Reductions:** Significant savings in warranty processing costs, including a reduction of approx. $50 million in warranty costs for any major automaker and automation of over 50% of warranty claims processing.
- **Regulatory Compliance:** The solution ensures adherence to safety and recall regulations, minimizing the risk of penalties by ensuring timely and accurate reporting.
- **Data-Driven Insights:** The integration of Microsoft Power BI and AI Insights in Power BI provide valuable insights into operational performance, aiding decision-making and process improvement.

Benefits of Solution

The solution delivers substantial financial benefits through a combination of warranty cost reductions, operational efficiency, regulatory compliance and others:

- **Approx. Warranty Cost Savings:** $50M in reductions via AI and automation. $75K/month savings using Robotic Process Automation (RPA). $40M savings through AI/ML claims pre-validation. $30M - $40M annual savings from automating over 50% of warranty claims processing. $20M savings from an end-to-end warranty solution with supplier recovery.

- **Regulatory Compliance:** Ensures timely and accurate safety defect reports and recall communications, avoiding penalties.

- **Operational Efficiency:** Faster issue detection and improved case resolution times through automation. Enhanced employee productivity and streamlined workflows.

- **Customer Satisfaction & Retention:** Improved customer satisfaction and enhanced retention due to better omnichannel communication and AI-driven support capabilities. Strengthened dealer relationships, contributing to higher loyalty and satisfaction.

- **Financial Impact from Global Expansion:** $4M in expected revenue from expanding the solution to European markets. $2M in potential additional revenue from further expansion into North American markets.

- **Improved Scalability:** The platform's modular design allows for easy expansion to different regions and verticals, providing a replicable solution for other manufacturers.