

Leveraging NLP to Improve Customer Service and Sales



Leading Personal Computing firm wanted to improve efficiency of their service process which was annually costing them over \$50million and over 0.5 million in unused parts



Context:

Client's customer care service agents document their interaction with customers when a service request is raised and identify the parts to be ordered



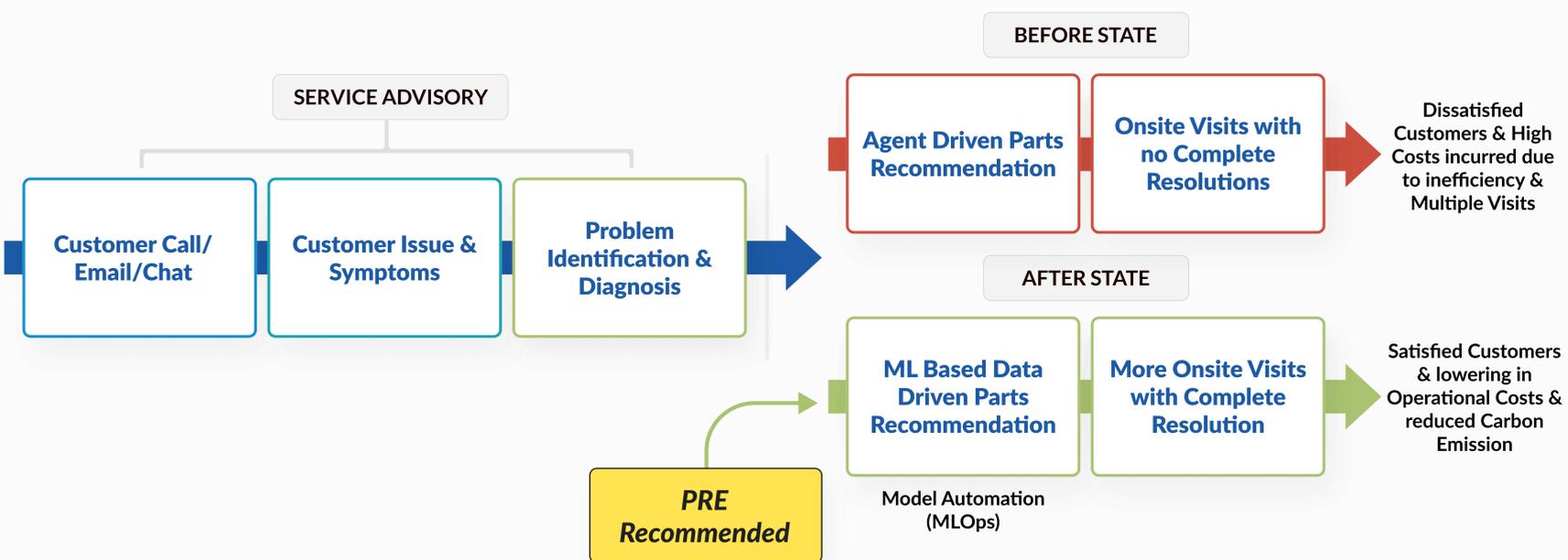
Before State:

- Parts replacement is based on the documented diagnosis reports, agent's knowledge & experience only resulting in **~250K onsite visits** with wrong parts
- Inefficient process leading to about **~500K Unused Parts, ~\$50M Inefficiency cost** annually and Customer Dissatisfaction



LatentView's Data Driven Real-Time Recommendation Engine:

- Used **PRE Product Recommendation Engine** to replace manual, agent-driven approach
- Automated model training and model drift using the **MLOps framework in a complete Azure ecosystem** including Azure Databricks, Azure Kubernetes



Impact:

- Improved accuracy dramatically to **80% from 65%**
- Scaled to **6 different product categories** under personal systems **across the Globe**

WHY PRE?

PRE is an open-source machine learning framework for NLP

- Leveraged by a Search Engine Giant in their Search Engine
- Best NLP method to understand context-heavy texts
- Supports 70+ languages
- Pre-trained & combines Mask Language Model (MLM) and Next Sentence Prediction (NSP)