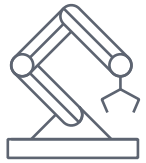


Shipset demand analysis

Aircraft aftermarket parts (shipset) supplier

Developed a demand estimation model for existing and potential customers by leveraging detail of operational aircraft fleets along with various types of parts supplied by client which can be used as components in these fleets

Aircraft parts supplier needs to analyze the demand of portfolio products

SHIPSET DEMAND ANALYSIS

Picture this…

You're looking to build an analytical model to assess shipset demand and create an automated Power BI dashboard to enable visualization of global demand and its sales performance. Currently, you have no visibility into demand of the portfolio products (shipset) by existing customers and potential customers across the globe.

You turn to Accordion.

We partner with your team to develop a demand estimation model for existing and potential customers by leveraging details of operational aircraft fleets along with various types of parts supplied which can be used as components in these fleets, including:

1) Developing analytical model to estimate demand of products by mapping international operational fleets' specifications such as type of airframe, engine & auxiliary power unit, with product details and sales data
2) Identifying and correcting data gaps such as standard nomenclature of fleet types & customer names, thereby improving mapping of data with third party database of operational fleet (Cirium)
3) Providing flexibility to add or remove a customer from demand calculation based on factors such as FAA-PMA friendly status or sanctions by the US government, while also enabling modification of key demand calculation variables such as shipset quantity & replacement rate
4) Deploying Power BI dashboard with automated ingestion of data from SharePoint and ERP system (Quantum Control)

Your value is enhanced.

- You have visibility into ~$900 Mn demand from ~1,100 potential customers across the globe
- You have identified ~$275 Mn of uncatered demand for existing customer base
- You have also reduced 4 FTE days per month by developing an analytical data model and automating the data ingestion process

KEY RESULT

- ~$900 Mn potential product demand identified
- ~$275 Mn uncatered demand identified
- Savings of ~4 FTE days/month

VALUE LEVERS PULLED

- Demand Analysis
- Sales Performance Analysis
- Automation of sales & operations data ingestion

Shipset demand analysis for aircraft parts supplier

Situation

- Client lacked visibility into demand of its portfolio products (shipset) by existing customers and other potential customers across the globe
- Partnered with the client to build an analytical model to assess shipset demand, and create an automated Power BI dashboard to enable visualization of global demand and its sales performance

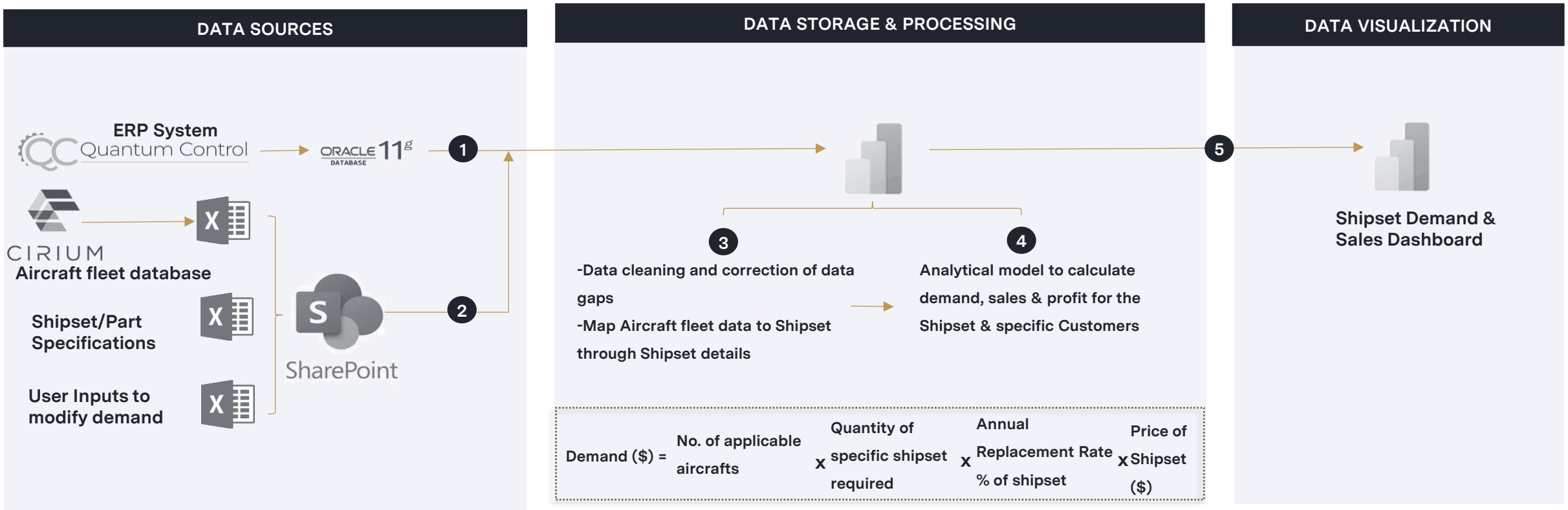
Accordion Value Add

- Developed analytical model to estimate demand of products by mapping international operational fleets' specifications such as type of airframe, engine & auxiliary power unit, with client's product details and sales data
- Identified and corrected data gaps such as standard nomenclature of fleet types & customer names, thereby improving mapping of client's data with third party database of operational fleet (Cirium)
- Provided user flexibility to add or remove a customer from demand calculation based on factors such as FAA-PMA Friendly status or sanctions by the US government, while also enabling modification of key demand calculation variables such as shipset quantity & replacement rate
- Deployed Power BI dashboard with automated ingestion of data from SharePoint and client's ERP system (Quantum Control)

Impact

- Provided visibility into ~$900 Mn demand from ~1100 potential customers across the globe
- Aided identification of ~$275 Mn uncatered demand of existing customer base
- Reduced 4 FTE days per month by developing a data model and automating data ingestion

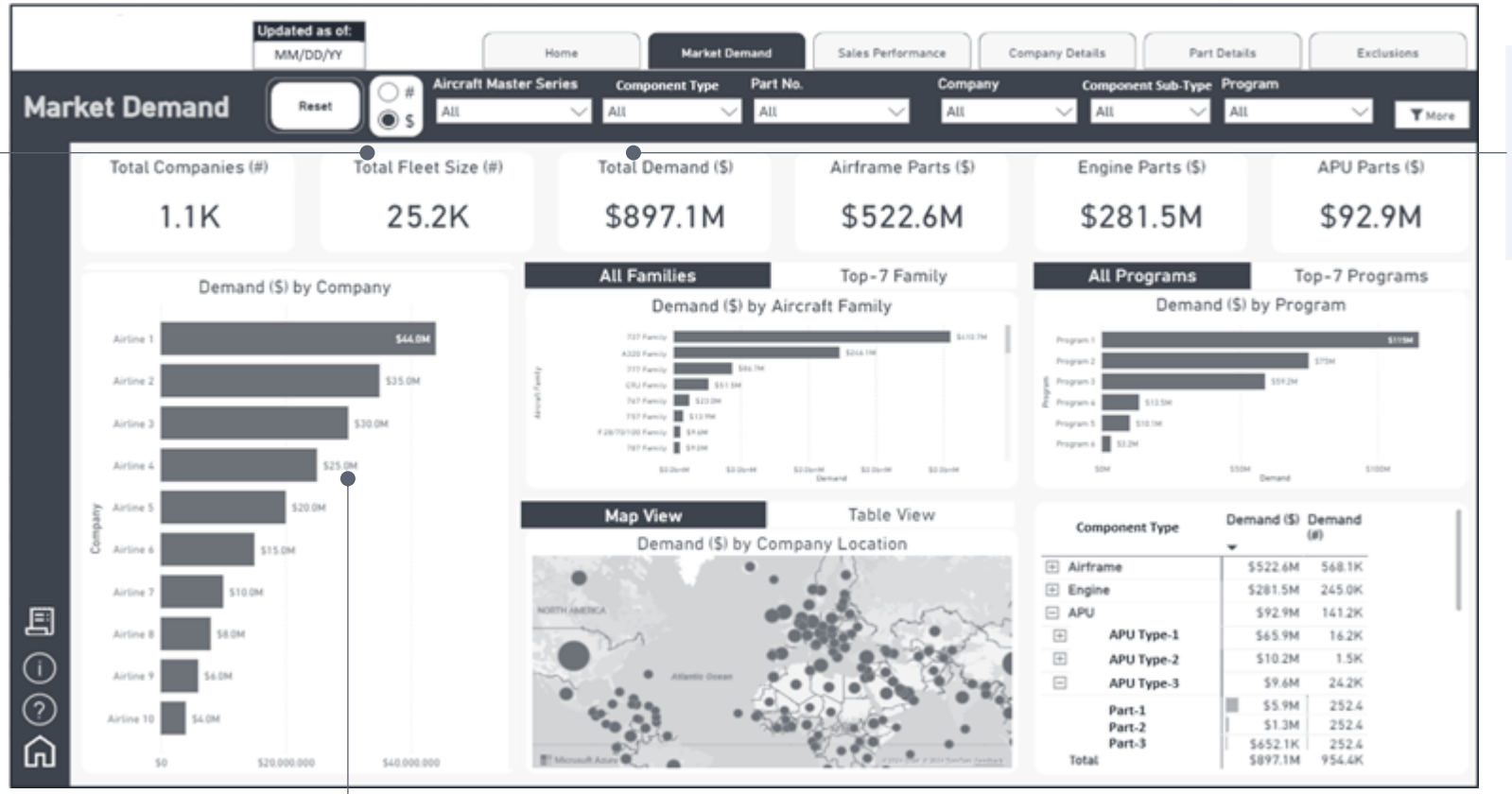
Methodology/Approach – Data flow



1. *Ingest sales & product details data from Oracle database of Quantum Control (ERP system) to data repository (Power BI)*
2. *Ingest, from SharePoint, data associated with international operational fleet, shipset details & user inputs for demand modification to data repository (Power BI)*
3. *Clean data and map shipset specifications from Quantum Control & Excel with international fleet data from Cirium*
4. *Build analytical model to calculate demand of shipset for airframe, engine & auxiliary power units for the aircrafts*
5. *Design and implement Power BI dashboard to automate reporting*

Potential demand across the market

User can view demand values in terms of quantity of parts or in USD

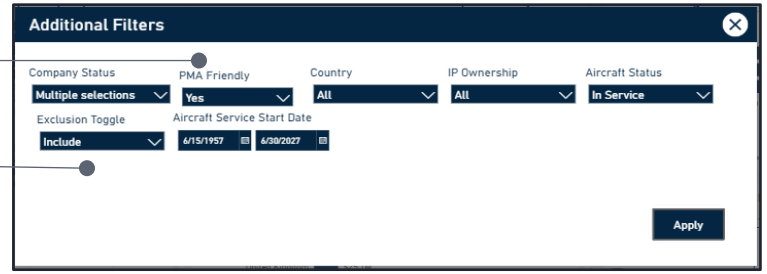


Total demand of shipset across companies, countries, aircraft types, engine types, APU types & product categories

Estimated demand of shipset for different companies

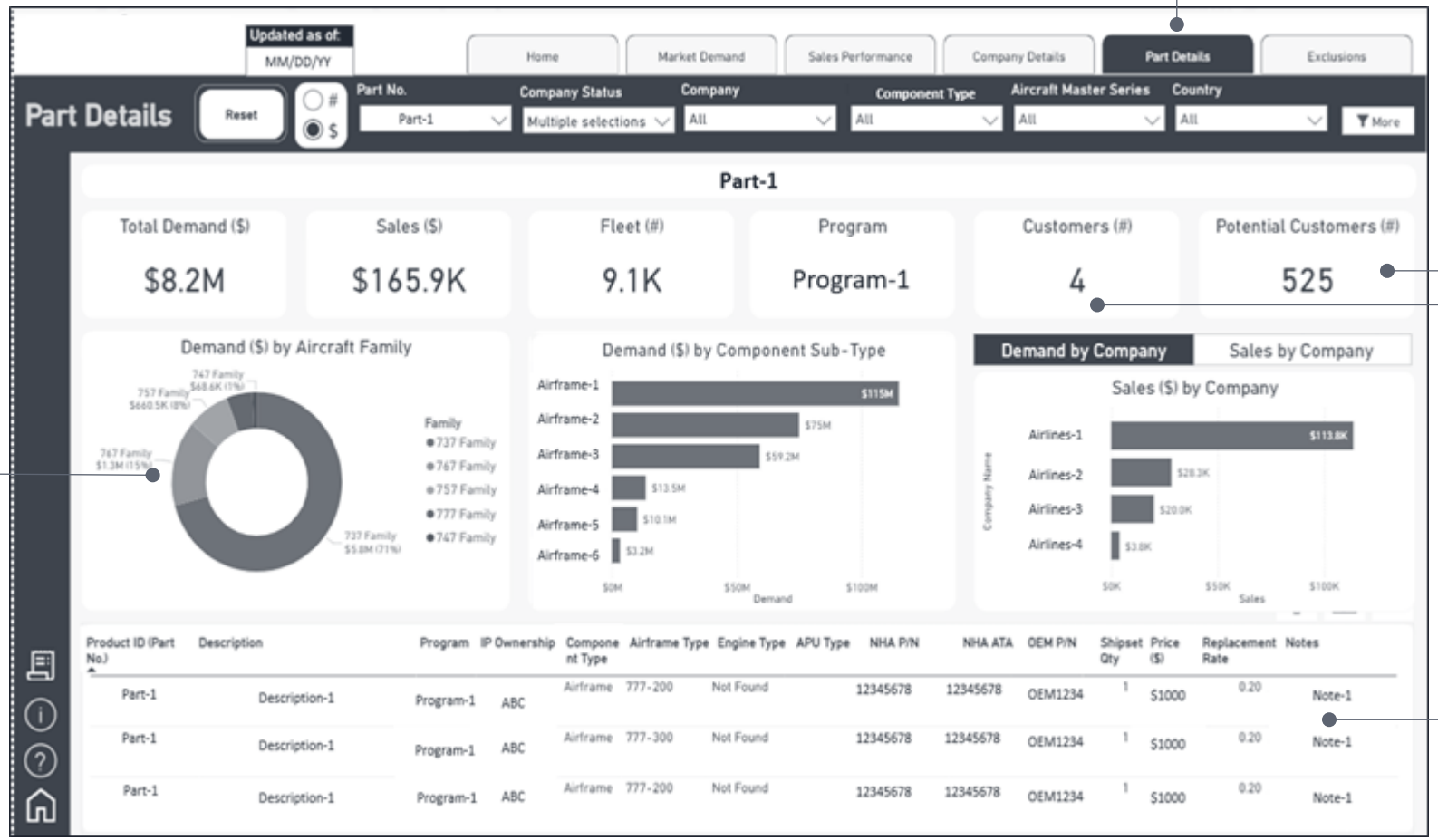
User can filter for PMA friendly companies

User can filter out such companies which do not buy from client



Demand vs. Sales benchmarking for a potential/existing client

Applicable fleets, demand, sales & specific details of a selected Product ID/Part no.



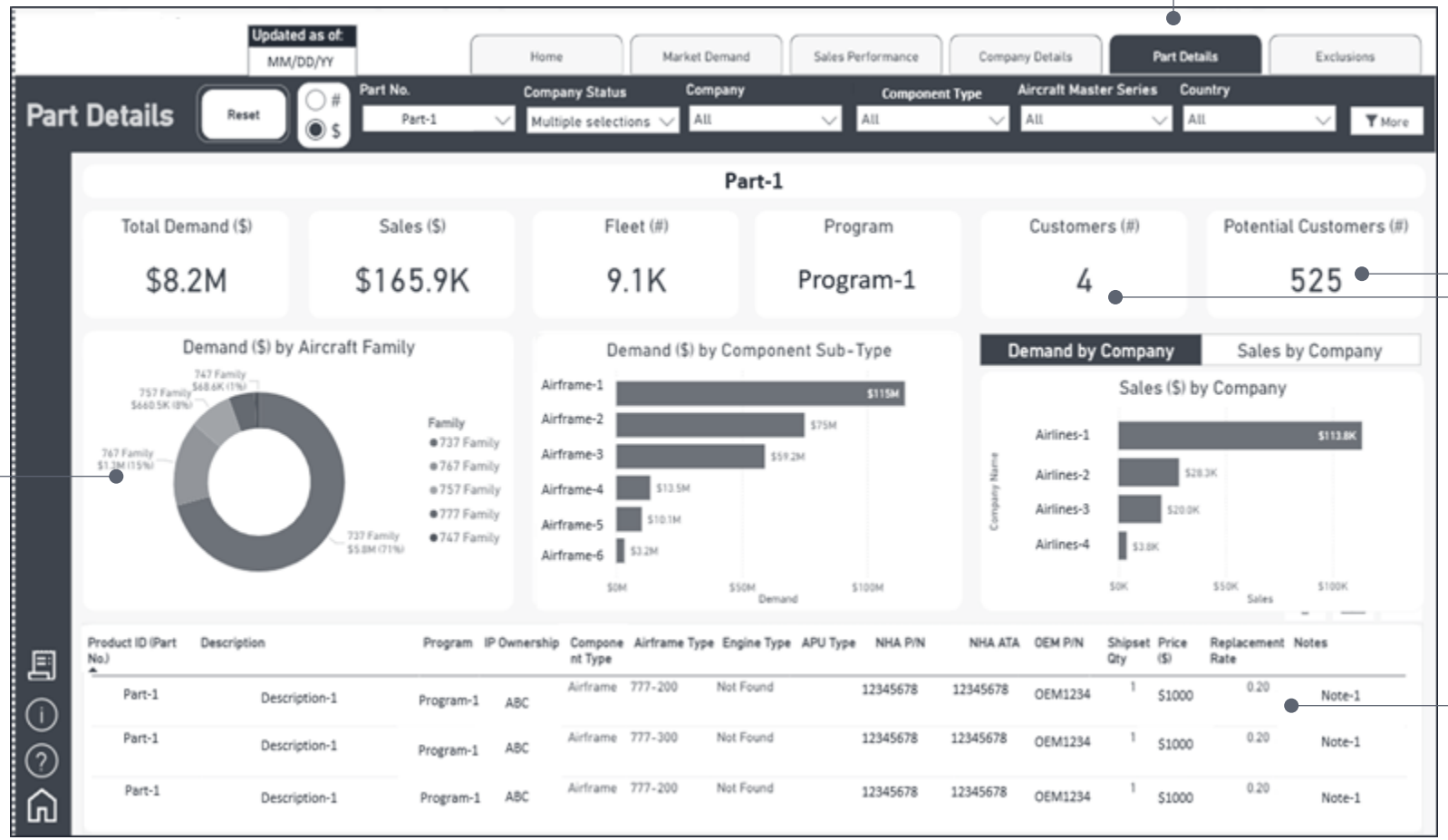
No. of customers who have purchased the product and no. of potential customers

Demand distribution by fleet family type for the selected Product ID/Part no.

Details of selected product

Demand vs. Sales benchmarking for a selected part

Applicable fleets, demand, sales & specific details of a selected Product ID/Part no.



No. of customers which have purchased the product and no. of potential customers

Demand distribution by fleet family type for the selected Product ID/Part no.

Details of selected product

Customization flexibility based on evolving business needs

User can change applicable shipset quantity, replacements rate % for a particular product & company

Company Name	Aircraft Type	Aircraft Component	Component Type	Program	Product ID	Shipset Qty	Replacement Rate (%)	Exclusion Flag
Test Company 1	767-200	Engine	Engine-1	Program-1	Part-1	10	40%	1
Test Company 2	737 Max 8	Airframe	Airframe-1	Program-2	Part-2	20	20%	0

A particular company which does not purchase a particular product can be excluded in demand calculation based on user input

Cirium Company Name	Quantum Name	PMA-friendly Status	Country
ABC Airlines	ABC Airlines Ltd.	Yes	Australia
XYZ Airlines	XYZ Airlines LLC	No	United States

Mapping of Company name in Cirium database with name in client's ERP system

If a particular company is not FAA-PMA Friendly, can be removed from the overall demand calculation based on input

Learnings

1) Learnt about the aerospace industry & 3rd party database of internally operational fleet
2) Explored and identified system requirements to connect Quantum Control data to Power BI