AI Recommendations with Added Flexibility

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SYNTASA®

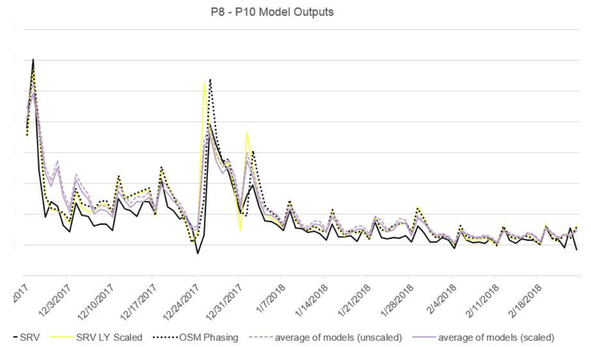
INTRO

- Welcome
- Syntasa and Dixons Carphone
    - Chris Ward - eCommerce Insight Manager – Data Science
    - Shawn Zargham - CTO
- PoC 2017 to Production Licence 2018
    - Synthesizer, Composer, Orchestrator

INTRO

Delivery fulfilment propensity score modelling – increasing knowledge of our visitors

Automation of reporting – speeding report generation and freeing analyst time



Machine learning driven sales forecasting – driving automation of our budgeting process

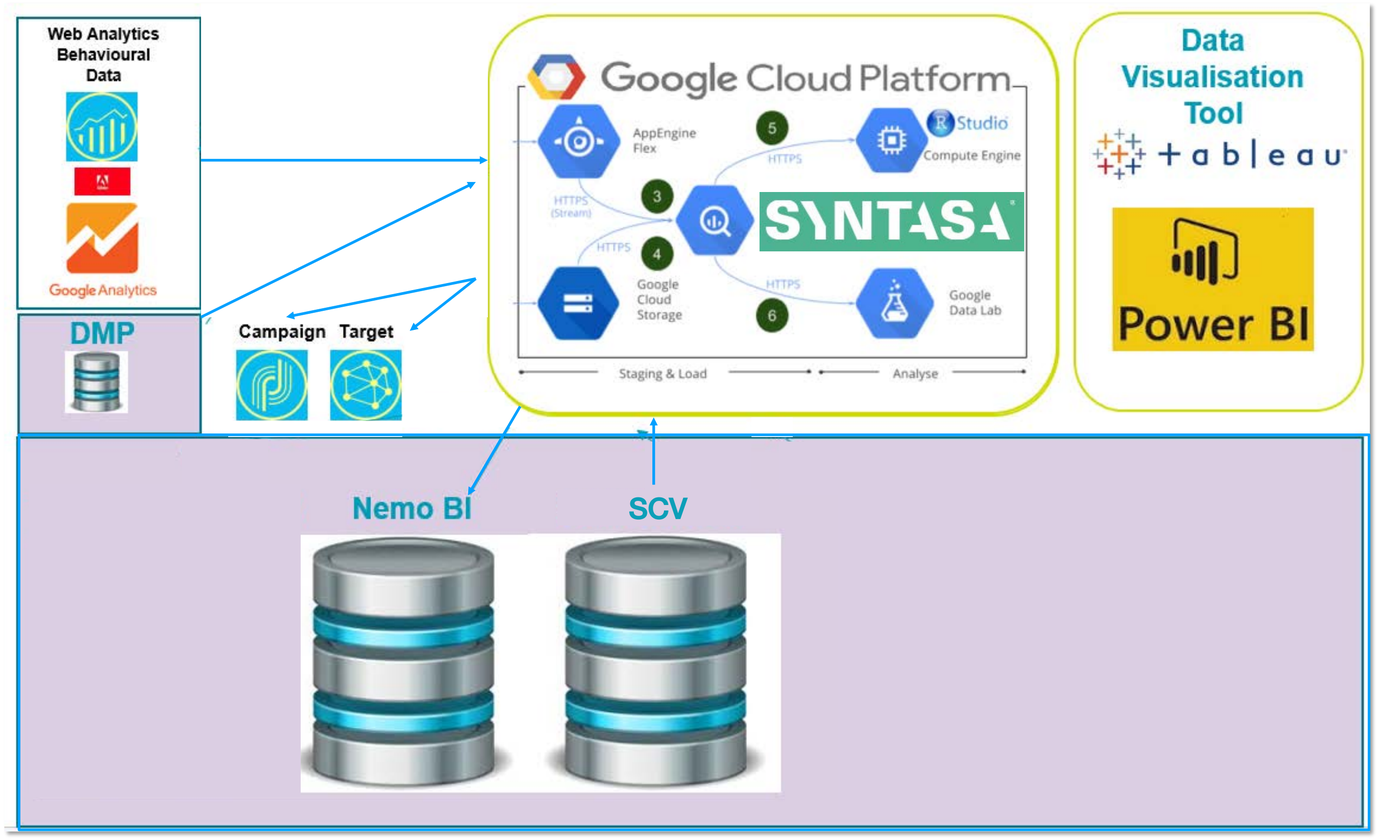
Our data science achievements:

Through a series of PoCs, we were able to demonstrate the value of having a focused data science team for Currys PC World eCommerce.

Natural attach analysis – enabling data-driven merchandising decisions

WISHLIST?

Building machine learning modelling was only the first step - we also needed a way to activate against our modelling to personalise our customers' journeys. We needed to be able to feed our modelling output back to the website where the customer can be served a bespoke experience



WISHLIST?

- We identified the need for a data platform with the storage and processing capability to ingest and analyse with low latency the large volumes of data we are able to collect about our visitors' interactions on our website.

- We identified Google Cloud Platform as the right environment for us due to its ease of use, cost efficiency and integrations with the marketing tools we were already using.

- We wanted to be able to combine multiple business data sources in this environment, to build machine learning modelling with the data, and to have the actionability of being able to pass the outcomes of our modelling to our activation channels (e.g. the websites, optimisation tools, our CRM)

CHALLENGE STATEMENT – THE ATTACH PROBLEM

- Historically, our attach journey has been based around manually generated bundles created based on commercial considerations. Uptake of these bundles online is below the uptake in stores where colleagues are able to manage the conversation with our customers.

- As our customers increasingly shift to online channels, we are faced with a challenge of how to better encourage our online customers to make sales with add-on purchases, a key driver of profitability within our business.

- With the large volume of data available to us on our website visitors, we are seeking to use this to build modelling that will allow is to generate bundle suggestions which are tailored to the customer, and as such increase the number of attach purchase journeys.

THE PREDICTIVE BUNDLE

How can data science modelling be used to predict the right bundle for a customer?

HW product

Natural attach data set indicates which attach products are bought with hardware products.

List of eligible attach products likely to be purchased with the HW product

Customer Journey segmentation determines which attach products and categories are most appropriate

Recommendations can be refined using demographic clustering to determine e.g. premium vs non premium customers, brand affinities

Best attach option for the customer

ATTACH UTOPIA

Customer is offered a consistent attach recommendation across whichever channel they are interacting with our brands. If the customer purchases without buying add-on products, we want to be able to offer these to the customer as part of our CRM programme.

Customer on Currys website

Product, behavioural and demographic modelling identifies the best attach product for the customer

Best bundle offered to customer on product page and in basket

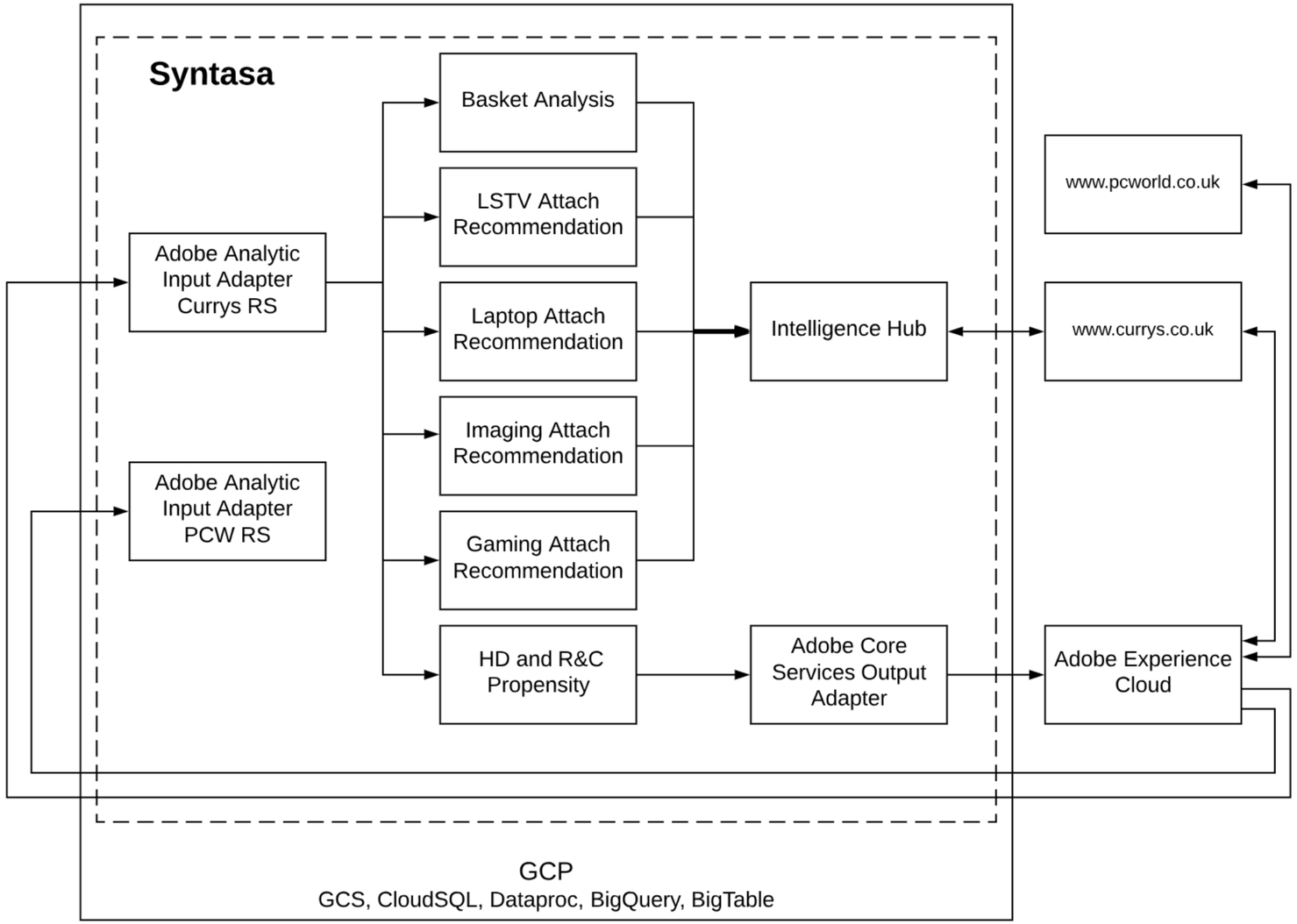
Attach sale made on website

Customer purchases without attach

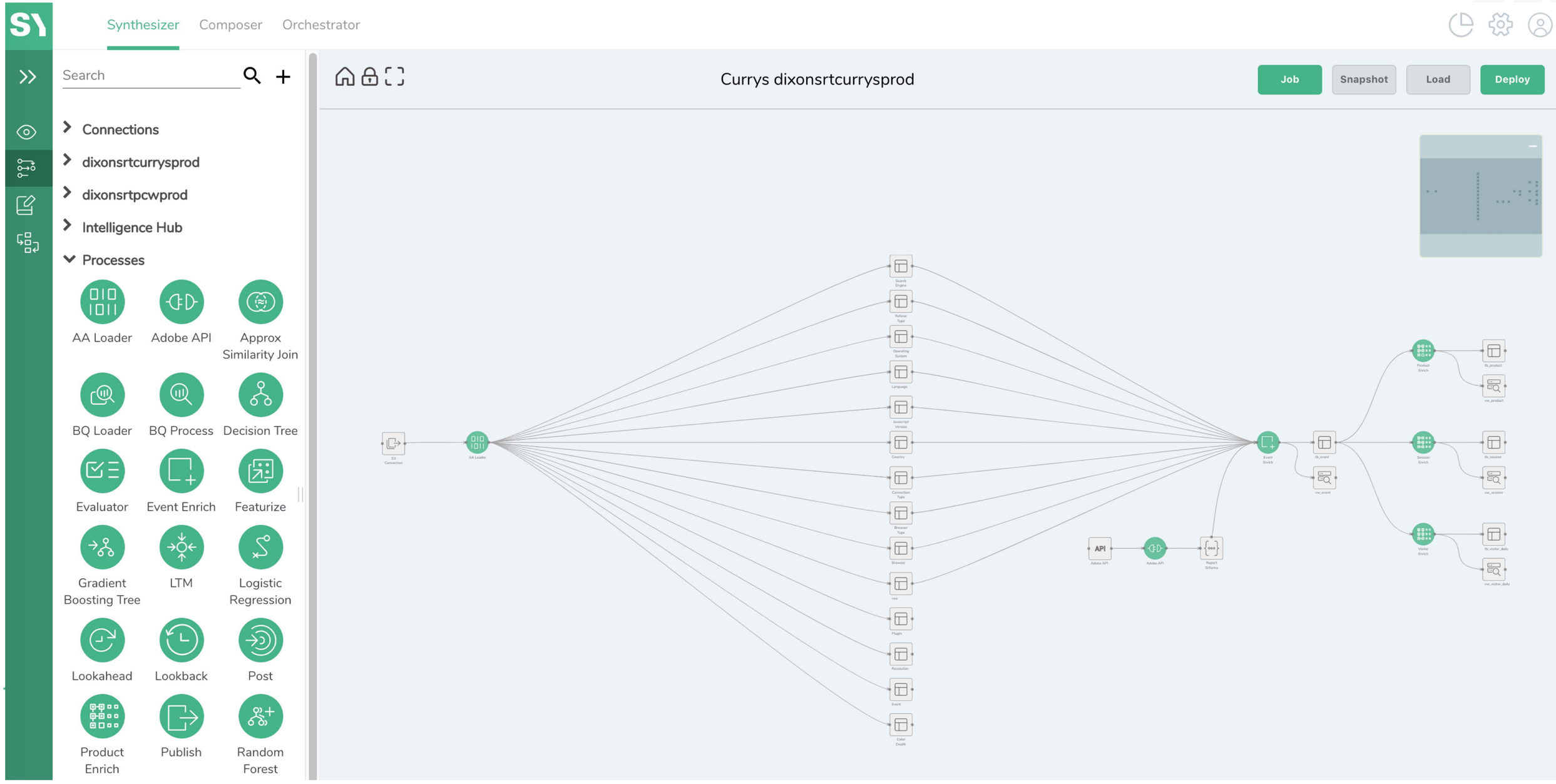
Recommended attach product for customer could be retargeted to customer through email or display

THE SOLUTION – TARGET ARCHITECTURE

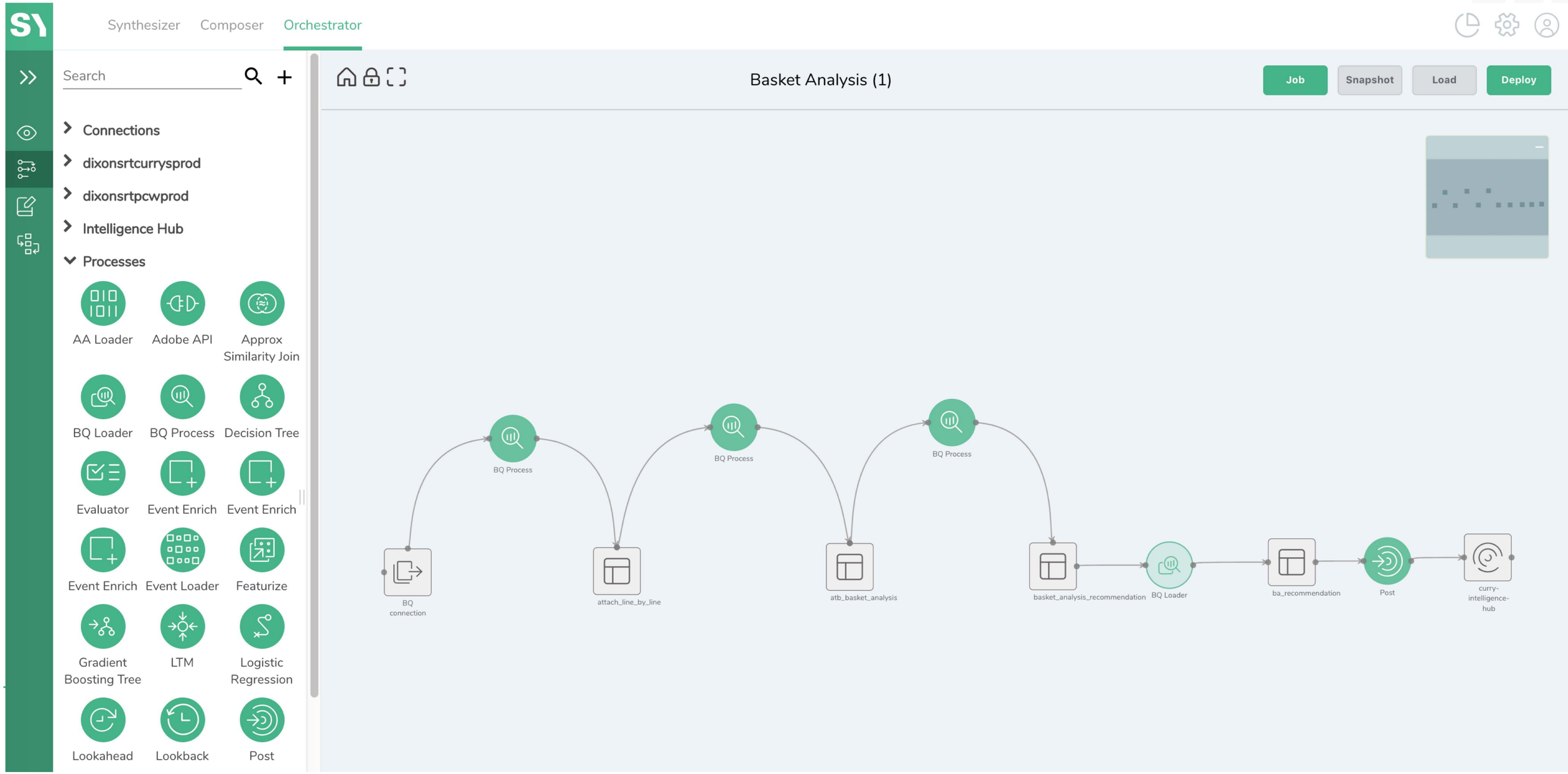
- Leverage native GCP services
- Use Apps to compartmentalize application function
- Productionize Dixons Carphone's and 3rd party models
- Productionize additional models in Syntasa
- Real-time recommendation API



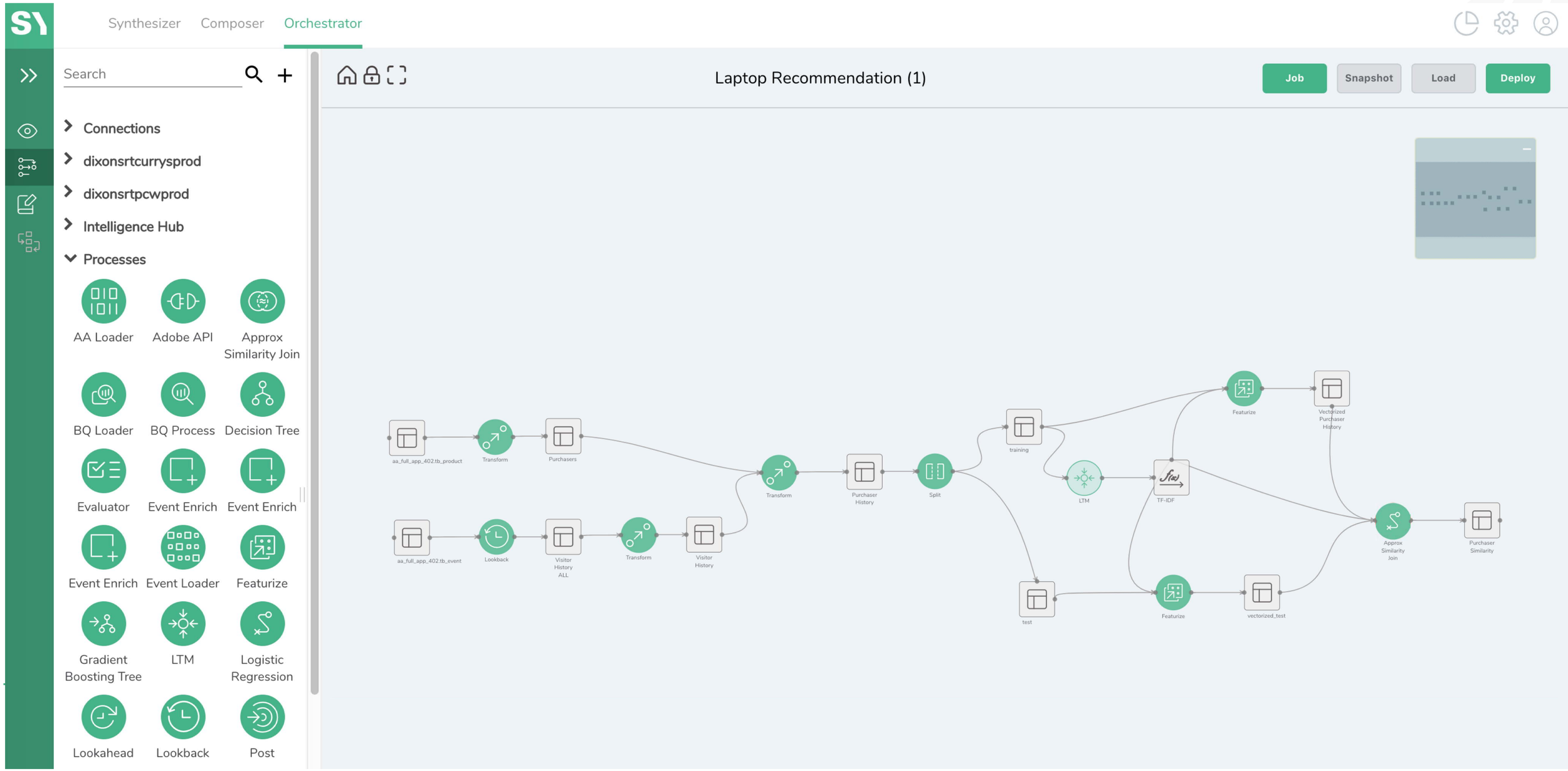
ADOBE INPUT ADAPTER APP



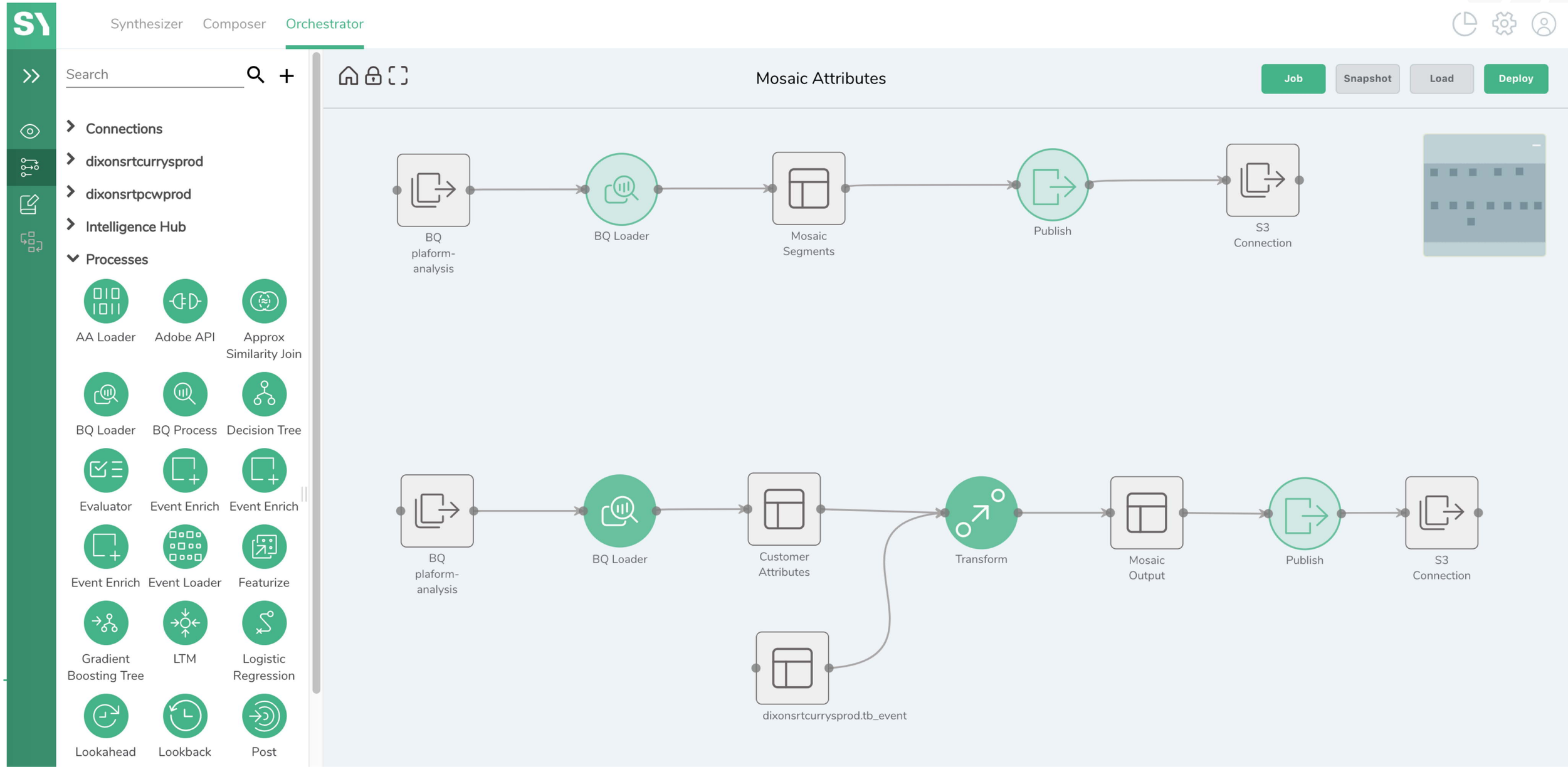
BASKET ANALYSIS APP



RECOMMENDATION MODEL APP



ADOBE CORE SERVICES OUTPUT ADAPTER API



WHY SYNTASA

- Architecture of Adobe Analytics data into tables which can automatically be used by analysts / data scientists, made available for analysis and customer scoring as soon as the data is available from Adobe

- Ability to productionise data science modelling built internally or by third parties in scalable workflows that can be put into production

- Creation of processes to regularly update visitor propensity scores and to retrain modelling on a schedule, with diagnostics to ensure model accuracy remains reliable over time

- Reducing the need to build cloud data engineering resource and skills in house – Syntasa GUI allows production workflows to be built without coding

- Increasing the speed to value our data science program can deliver to the business

ANY QUESTIONS?

THANK YOU!

LAUNCH + LEARN 4.0

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