

# OUR PLATFORM

**Two things are widely accepted and agreed upon in today's modern marketing conversation:**

1. Data is critically important to providing intelligent customer experiences
2. Artificial Intelligence (AI) and Machine Learning (ML) have the potential to generate massive value

**What is less understood is how to:**

- /// Deal with the massive amounts of customer, visitor, and prospect (CVP) data from many disparate sources
- /// Apply AI/ML technologies to this data to generate predictions
- /// Deploy predictions into production and activate them in your marketing technology stack

## /// Our Platform

Syntasa developed a Customer Intelligence Platform to deliver all of the capabilities you need to deliver intelligent customer experiences. It provides an integrated data + data science + activation pipeline, along with a suite of products that ingests raw data, stitches activity for each individual, creates features, trains models, deploys algorithms to production, and activates them. It uses the concept of Apps (along with the sequencing of those apps) to improve reliability and efficiency, accelerate time-to-value, and provide a significant return on investment over home-grown solutions. Apps provide a low-code to full-code platform which allows teams in business, digital analytics, data science, and data engineering to develop and own their portion of the overall pipeline, while reusing the complementary work from other teams.

Additionally, since the platform runs natively in your enterprise virtual private cloud, you get to keep your sensitive customer data inside your firewall. This way you can reclaim control of your data across your various marketing clouds while leveraging the power of recent technology advances in big data processing and AI/ML.

In today's environment, it's important to treat your customer's Personally Identifiable Information (PII) responsibly. Regulations such as GDPR have introduced stiff penalties for not doing so. The Syntasa platform complies with GDPR regulations and supports suppression lists to ensure you no longer process data from consumers who have opted out. Furthermore, Syntasa enables encryption of PII data at the time of ingestion to ensure that all analyses and algorithms are working with encrypted PII data. At the time of activation, encrypted PII data is decrypted and re-encrypted in memory by working with external Key Management Services (KMS).

### CAPABILITIES

- Scalable data and AI app framework for development and production
- Integrated production data + feature + activation pipelines
- Templated integrations, processes, and apps to enable consistency and code reuse
- Rapid prototyping from low-code drag-and-drop interface and full-code interface
- Collaboration, version control, and automated documentation framework
- Advanced job definition, scheduling, and management capabilities with job failure alerts
- Data quality monitoring with visibility into data provenance and lineage
- Business alerting and model performance monitoring
- Native support for AWS, GCP, and Azure cloud infrastructure, as well as on-premise infrastructure support with Snowflake, Qubole, and Cloudera
- Apache Spark and Kubernetes runtime support

### SYNTHESIZER



Behavioral data processing

Identity resolution

Unified behavioral schema

### COMPOSER



Training data preparation

AI and machine learning

1-click model productionization

Custom and bring-your-own models

Model drift/performance monitoring

Simple model retuning

### ORCHESTRATOR



Unified customer intelligence

Activation center

Output adaptors

Data-aware model serving layer/framework

### ENVIRONMENTS

 Google Cloud Platform  snowflake



cloudera

 Microsoft Azure

 qubole

# Synthasizer

The biggest challenge with modern marketing today is dealing with the scale and variety of customer, visitor, and prospect data. While this is an issue for any company, it can be orders of magnitude more difficult for large consumer-facing brands with big media budgets, significant website activity, and a vast number of customer transactions. They have:

- Behavioral data from websites, apps, and devices which comes from analytics tools like Adobe Analytics and Google Analytics 360. Behavioral data is the most complex and most difficult to deal with – not only is there a high volume, but there are thousands of semi-structured data elements, and different levels of abstraction (sessions, views, products, and events).
- Marketing data about impressions, views, and clicks from Ad Servers like Doubleclick and FlashTalking, and opens and clicks from email systems like ExactTarget and Marketo
- Enterprise data from online sources like ecommerce, CRM, and email as well as offline sources like store purchases, call center chats, and data from channel partners.

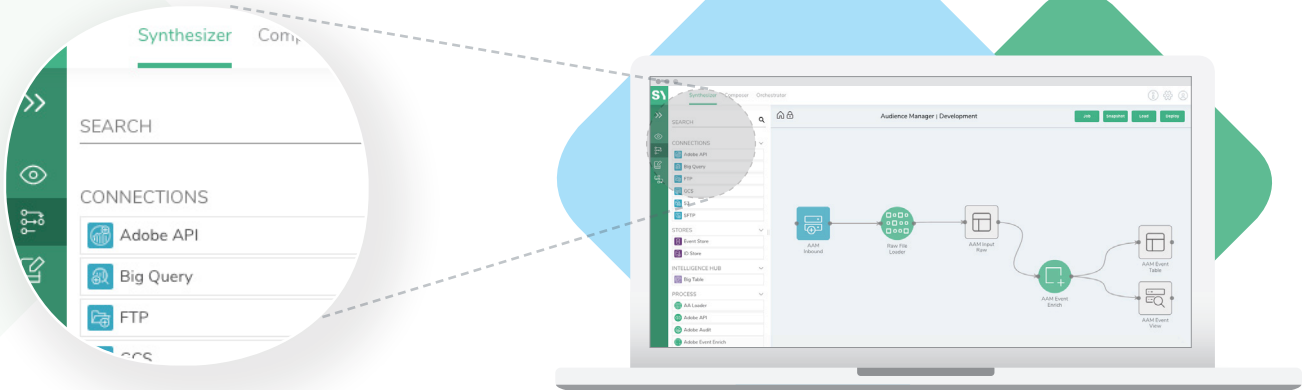
Fortunately, these are the kinds of challenges where Syntasa really shines. The foundation of our platform is data, and we have deep experience with advertising, behavioral, and enterprise data sources. Syntasa Synthasizer has pre-configured adaptors to ingest data from marketing technology systems like Adobe, Google, and others. It validates and uses our Identity Graph to synthesize them into a single view for each individual with visibility into their behavior (e.g., impressions, clicks, sessions, views, products, events, purchases, subscriptions, and cancellations). And it is architected to leverage the power of native cloud services for scalable distributed processing.

## CAPABILITIES

- Intuitive, drag-and-drop app builder
- Automated data preparation
- Alerting for data processing and quality
- Unified schema with quality audits
- Combine online and offline data
- Join impression and clickstream data

## INTEGRATION APP TEMPLATES

Adobe Analytics	
Adobe Audience Manager	
Adobe Campaign	Adobe Livestream
Coremetrics	Eloqua
Enterprise Data	Generic CRM
Generic DMP	Generic Email Marketing
Generic Streaming	Google Analytics 360
Identity Graph	Marketo
Oracle BlueKai	Salesforce
Unified Schema	



# Composer

While the data processing and organization is a significant challenge, it's certainly not the whole challenge. How you use your data is at least as important as having the right data. The Syntasa platform integrates state-of-the-art algorithmic modeling capabilities to enable your team to collaboratively design use case-based, data-driven experiences.

Syntasa Composer enables your team to develop methods for: 1) creating features, 2) testing, evaluating, and selecting AI models, and 3) deploying them in Syntasa's Machine Learning Operations (ML Ops) environment. Additionally, some companies choose to build their own models using tools such as notebooks, R, and Python. These "bring-your-own" models can be deployed within Syntasa via a code process. We have also implemented rules-based methods to quantify the impact of switching to algorithmic from rules-based.

## USE CASES

- // Churn reduction
- // Product affinity analysis
- // Multi-channel attribution
- // Algorithmic retargeting
- // Call center deflection
- // Next best action
- // Content recommendations
- // Purchase path friction
- // Cross-channel journey analysis
- // Net promoter score enhancement
- // Customer clustering

## CAPABILITIES

- Propensity, affinity, recommendation, and other supervised learning algorithms
- Clustering and other unsupervised learning algorithms
- Feature Store to enable teams of data scientists to use a consistent set of features
- Model Store to enable data scientists, data engineers, and digital analytics to collaborate and track model runs and results
- Test and deploy multiple models from any source, whether it's built with Composer or imported from another model studio
- Plug-and-play AI/ML App builder
- Automated learning and scoring
- Model diagnostics visualizations
- Active model quality monitoring
- Text handling algorithms
- Temporal data handler
- Ability to run on non-Syntasa created datasets and tables
- Custom training data and predictive time windows
- Compatible with multiple libraries and languages (Python, R, Spark ML, Tensorflow, and more)

## APP TEMPLATES

Propensity Scoring	Journey Analytics
Behavioral Segmentation (Clustering)	
Recommendations	Anomaly Detection
Internal Site Search	Product Affinity
Success Attribution	

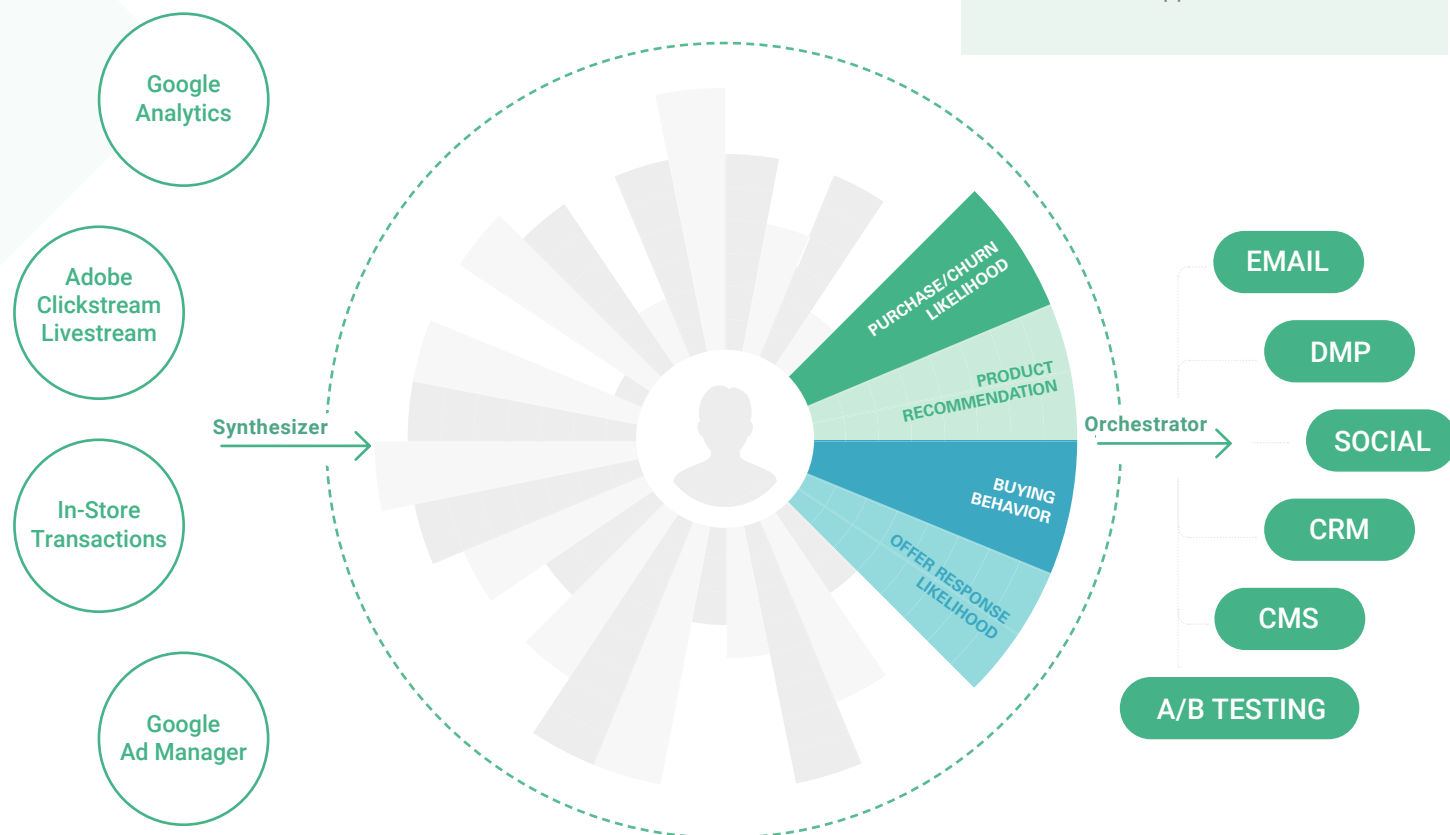
# Orchestrator

The most valuable (as well as most challenging) part of the journey in building intelligent customer experiences is taking meaningful action. All your work with data and AI/ML is of little use if you are not able to put your predictions to work in your live marketing campaign channels. And without a reliable pipeline of digital data, predictions, decisions, and actions – all constantly updated in an online production environment – then it's virtually impossible.

Syntasa Orchestrator activates your intelligent customer experiences on websites, apps, devices, and other MarTech systems like DMP, email, mobile messaging, and CRM.

## CAPABILITIES

- Unified Customer Intelligence Store – a centralized repository for model and rule-based attributes for various entities such as customers, anonymous visitors, and products
- Real-time recommendations and decisions in context via RESTful API
- File-based output apps to prepare and send list-based files to designated receivers
- ML-based customer profiles
- End-to-end monitoring
- Measuring results of actions in order to quantify impact and update predictions
- Drag-and-drop configure and productionize scalable data activation apps



## OUTBOUND APP TEMPLATES

Adobe Experience Cloud	Google Marketing Platform	Adobe Audience Manager	Google Ad Manager	Adobe Campaign
Eloqua	Marketo	Adobe Target	Salesforce	Oracle BlueKai
			Airship	Custom (S3/GCS/HDFS)