

Salesforce Data Cloud



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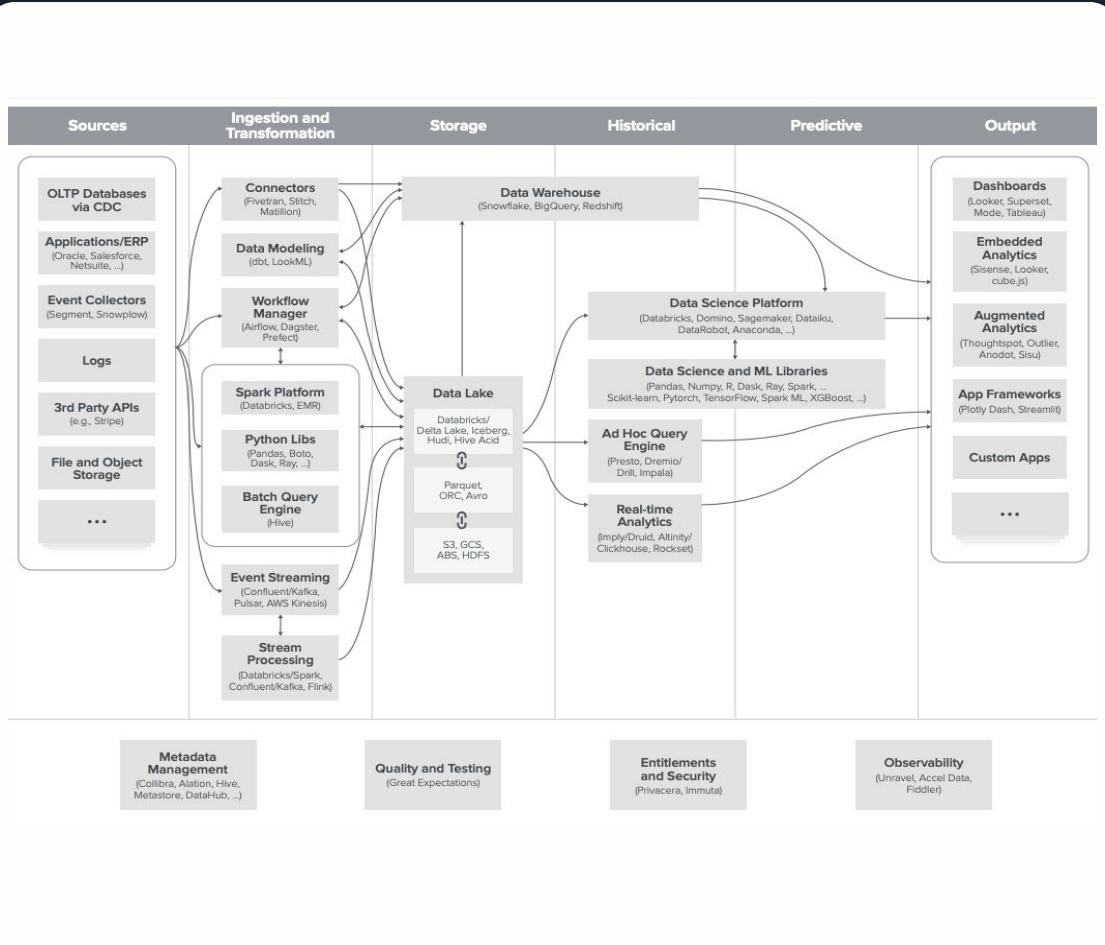


Data Cloud Overview



Data Cloud is Salesforce's hyperscale, (near) real-time data platform deeply integrated into the Salesforce Platform.

Data Lakes in the Wild



...and multiple data patterns require different technology.

Real-Time Decisioning

- Real-time Eventing
- Real-time IR
- Real-time Segments
- Real-time Actions

Machine-Learning Processing

- Data Snapshots
- Feature Store/ Insights
- Batch/Stream Transformations
- SQL/File Access

Applications

- Profiles, Engagement Data
- SQL, SOQL
- REST APIs
- Metadata

Event Processing

- Streaming Ingest
- Streaming Transforms
- Window Aggregates (last 5 min purchase etc.)
- Streaming Actions - Pub-Sub

Analytics

- Batch Ingest
- Batch Transforms
- Batch Insights
- Columnar Stores
- SQL

Lakehouse

- Delta Change capture
- Large Scale
- File Formats

Commonality - Data, Metadata, Insights

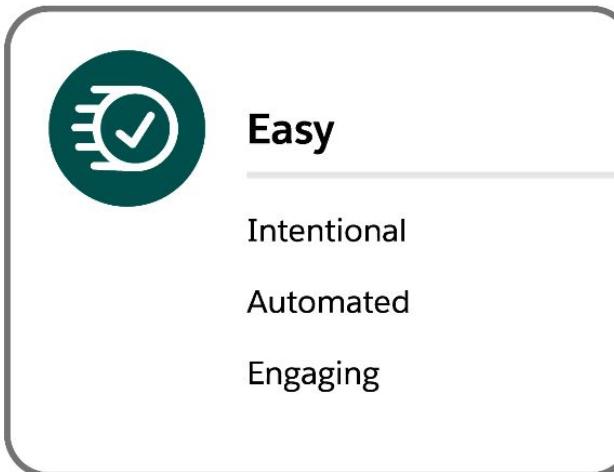
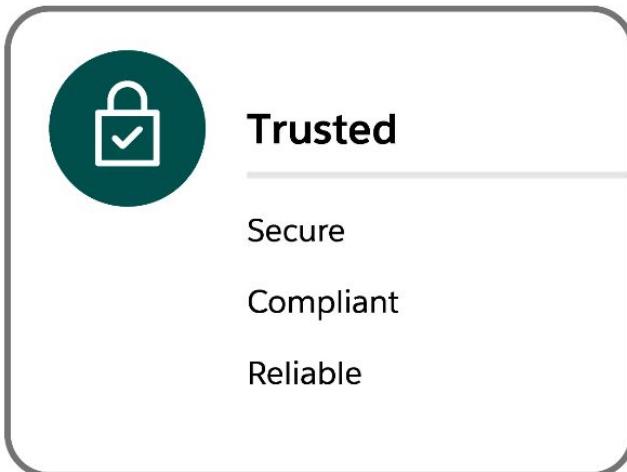
How Data Cloud Works



Salesforce Well-Architected



Salesforce Well-Architected Framework



<https://architect.salesforce.com/well-architected>

Data Mapping



Map disparate data source structures to a common model

Disparate Schemas

Contact
FirstName
LastName
MailingStreet
Phone



Subscriber
Email
Suburb



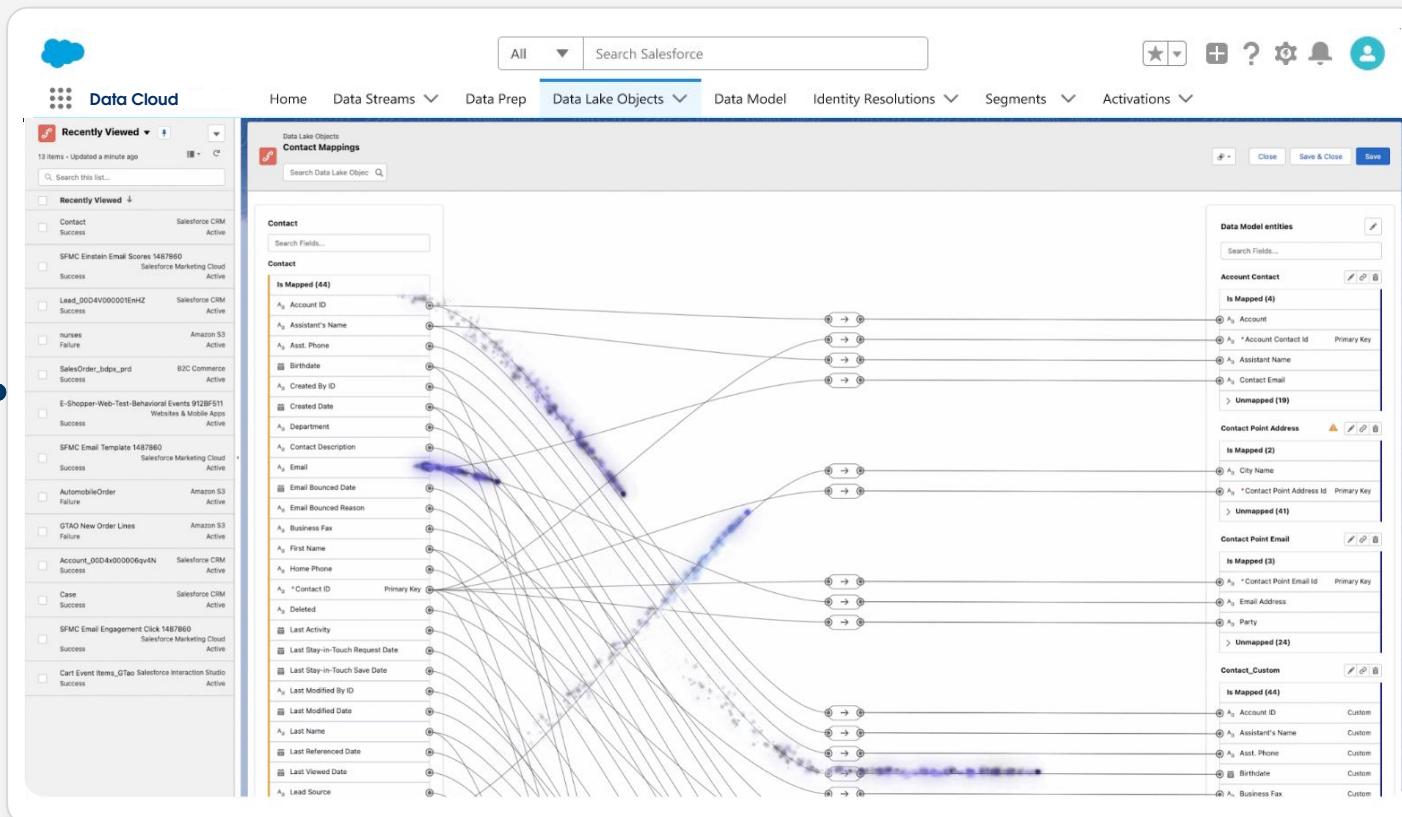
Guest
firstName
lastName
email
mobilePhone



Customer Invoices
First_Name
Surname
Address_1
Address_2



Data Map



Data Lake Object

Data Model Objects

Canonical (Normalized) Data Model

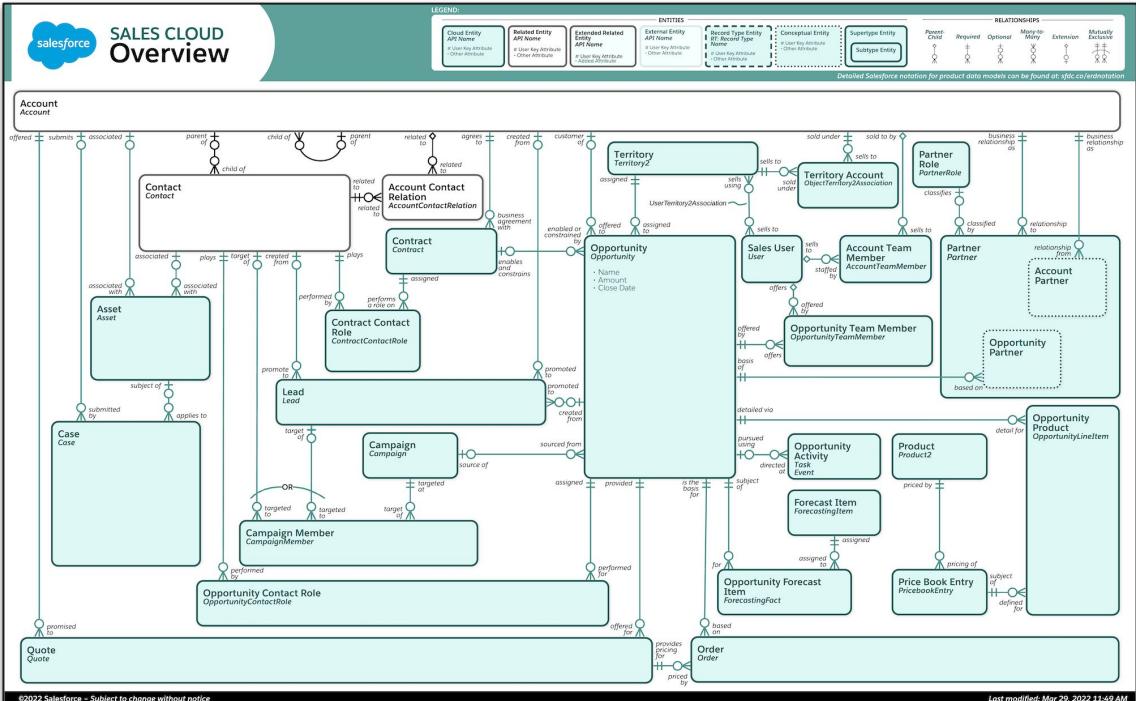
Individual

firstName
lastName
middleName
preferredName
militaryServiceId
birthDateDay
birthDateMonth
birthDateYear
birthDate
contactPointEmailId
mailingAddressId
mobilePhoneId
leadSource

ContactPointEmail

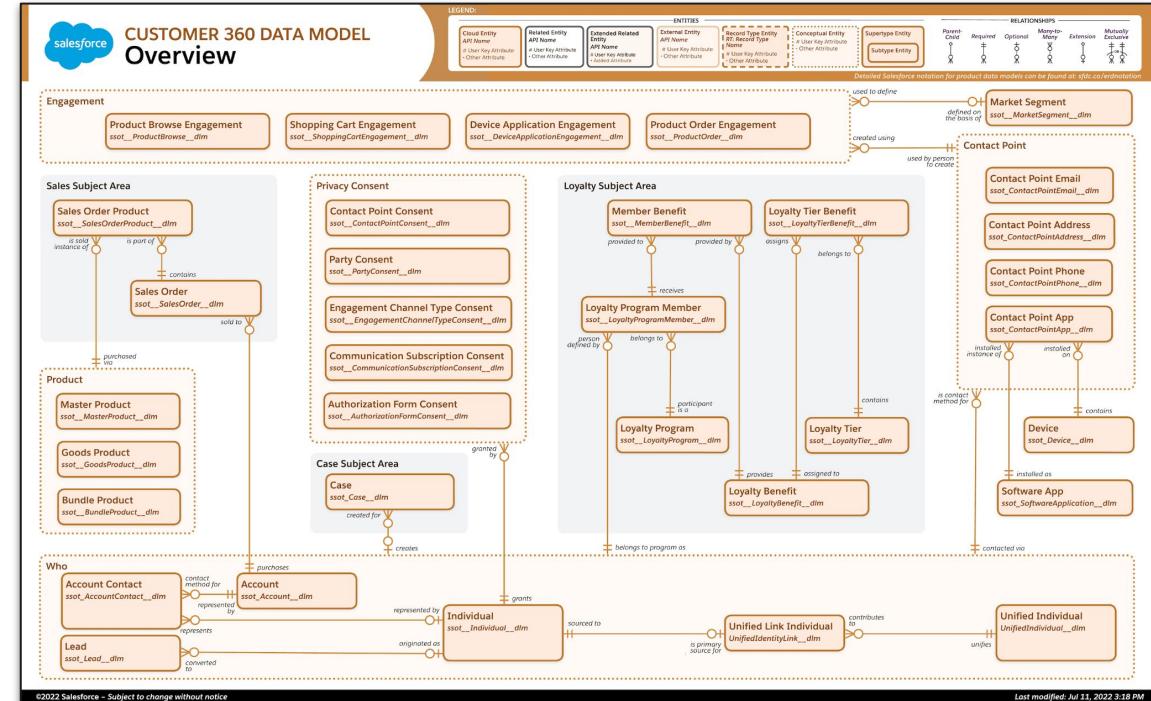
party id
email address

Salesforce Platform (Core) Data Model



!=

Data Cloud Customer 360 Data Model



Salesforce Platform (Core) Data Model

(Salesforce) Lead

- #Lead ID
 - Name
 - Address
 - Email
 - Mobile

Data Cloud Customer 360 Data Model

(C360) Lead

- #Lead Id
 - Created Date
 - Lead Source
 - isConverted
 - Converted Date

Individual

- #Individual Id
 - Created Date
 - First Name
 - Last Name
 - Person Name

Contact Point Address

- #Address Id
 - Party
 - Address Line
 - City
 - Country

Contact Point Email

- #Email Id
 - Party
 - Email Address

Contact Point Phone

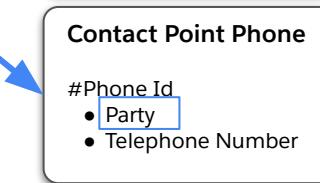
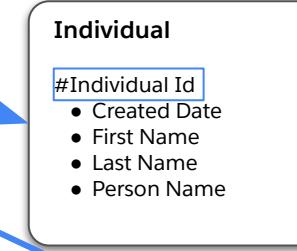
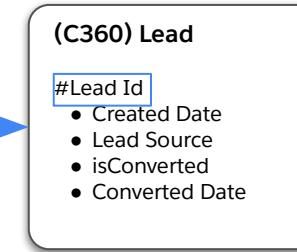
- #Phone Id
 - Party
 - Telephone Number

Salesforce Platform (Core) Data Model

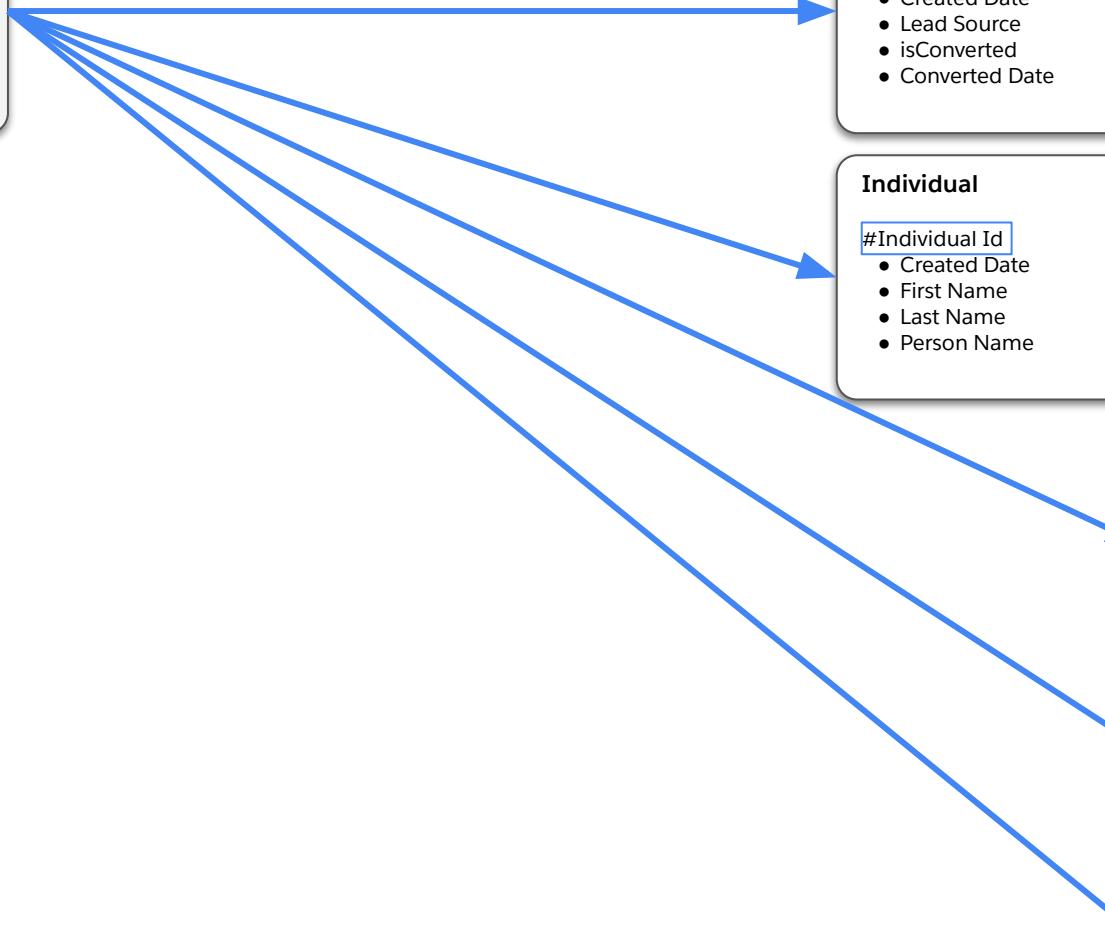


“flat-ish”
data model

Data Cloud Customer 360 Data Model



normalized, canonical
data model



Salesforce Platform (Core)

Object



Data Stream

Data Cloud

Data Lake Object (DLO)

CRM_Lead

- #Lead ID
 - Name
 - Address
 - Email
 - Mobile

Data Model Objects (DMO)

(C360) Lead

- #Lead Id
 - Created Date
 - Lead Source
 - isConverted
 - Converted Date

Individual

- #Individual Id
 - Created Date
 - First Name
 - Last Name
 - Person Name

Contact Point Address

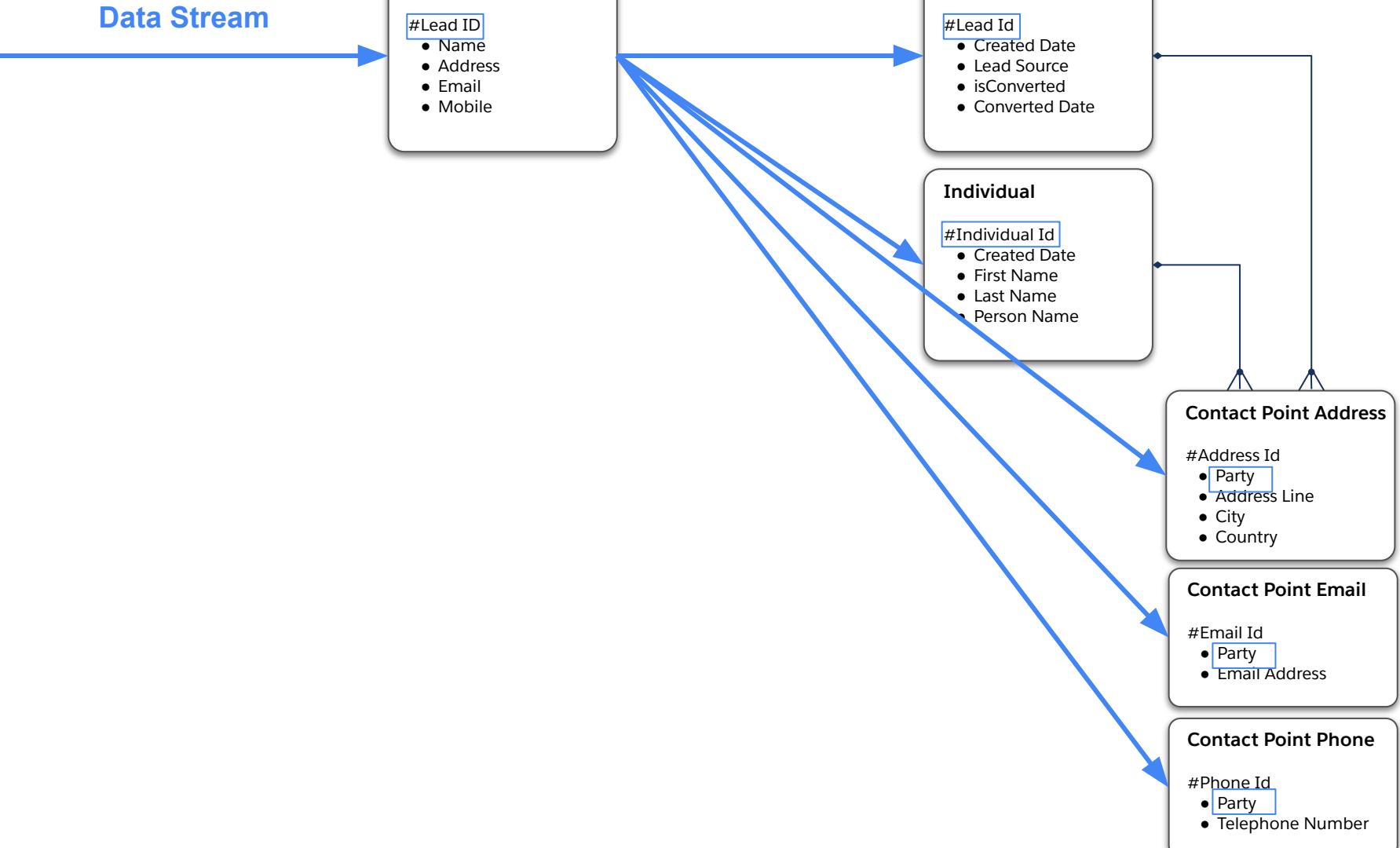
- #Address Id
 - Party
 - Address Line
 - City
 - Country

Contact Point Email

- #Email Id
 - Party
 - Email Address

Contact Point Phone

- #Phone Id
 - Party
 - Telephone Number



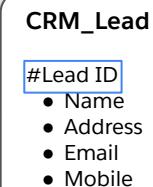
Salesforce Platform (Core)

Object



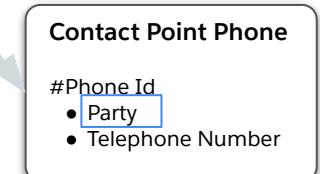
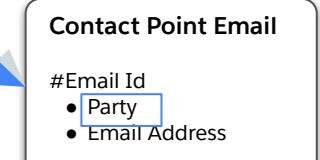
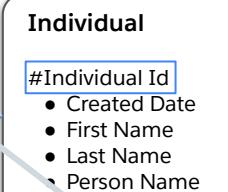
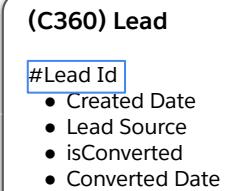
Data Stream

Data Lake Object (DLO)

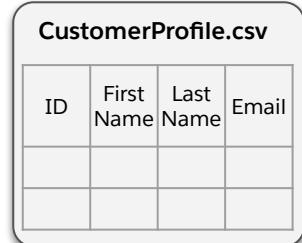


Data Cloud

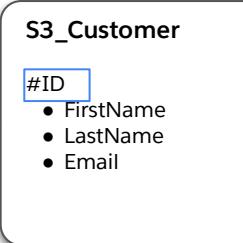
Data Model Objects (DMO)



Amazon S3



Data Stream



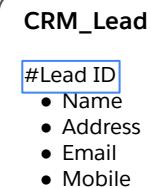
Salesforce Platform (Core)

Object



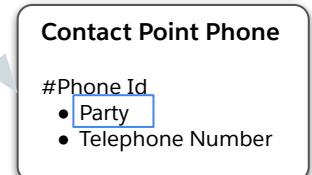
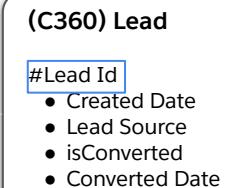
Data Stream

Data Lake Object (DLO)

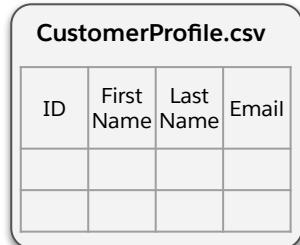


Data Cloud

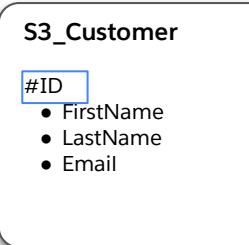
Data Model Objects (DMO)



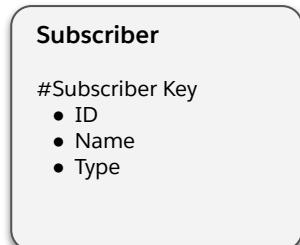
Amazon S3



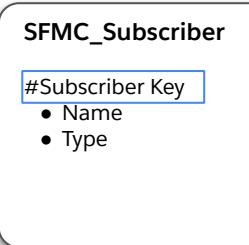
Data Stream



Marketing Cloud



Data Stream



Salesforce Platform (Core)

Object



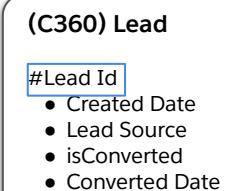
Data Stream

Data Lake Object (DLO)

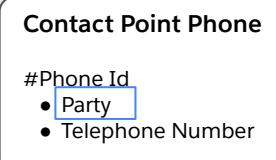
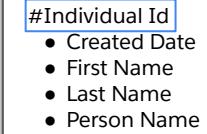


Data Cloud

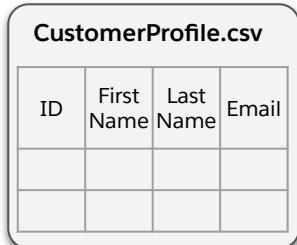
Data Model Objects (DMO)



Individual



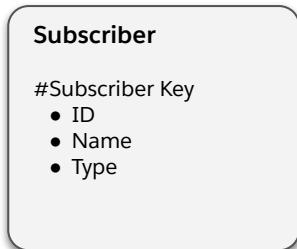
Amazon S3



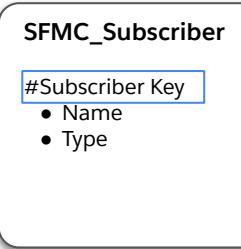
Data Stream



Marketing Cloud



Data Stream



Data Cloud

Data Cloud Instance



Data Cloud

Batch Data Ingestion and Harmonization

Frequency

Real-time

2 mins

Up to 15 mins

12 hrs

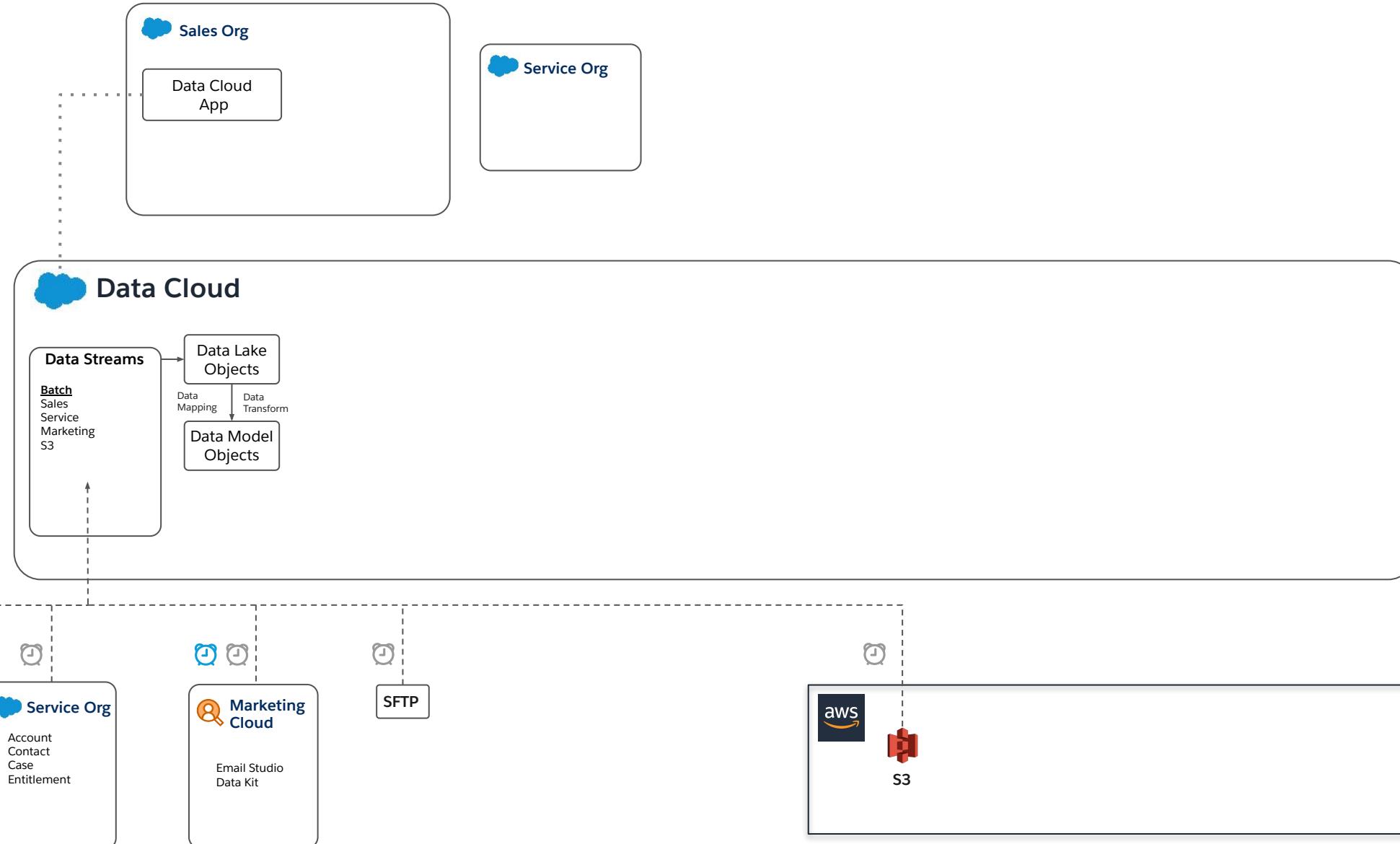
5 mins - 24 hrs

Hourly

Daily

Real-Time

Scheduled or Async



Data Cloud

Streaming Data Ingestion, Ingestion API, Bring Your Own Lake (BYOL)

Frequency

Real-time

2 mins

Up to 15 mins

12 hrs

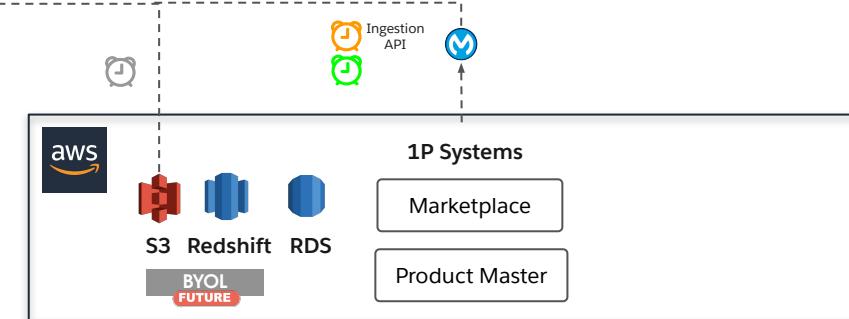
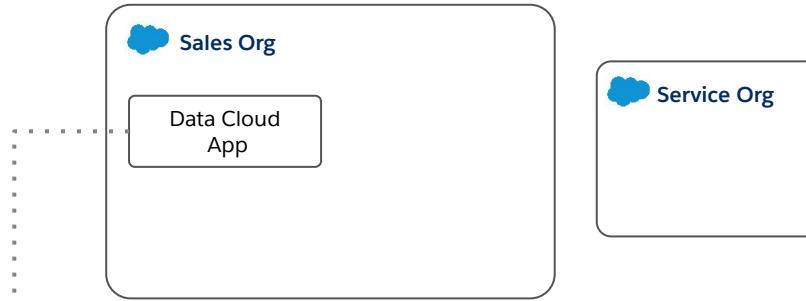
5 mins - 24 hrs

Hourly

Daily

Real-Time

Scheduled or Async



Data Cloud

Profile Unification

Frequency

Real-time

2 mins

Up to 15 mins

12 hrs

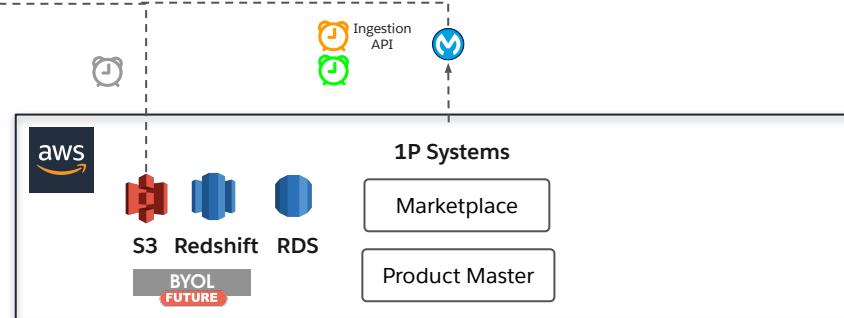
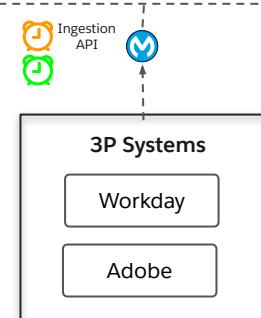
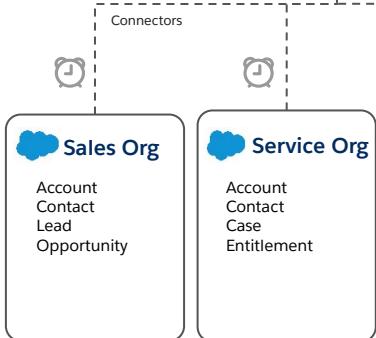
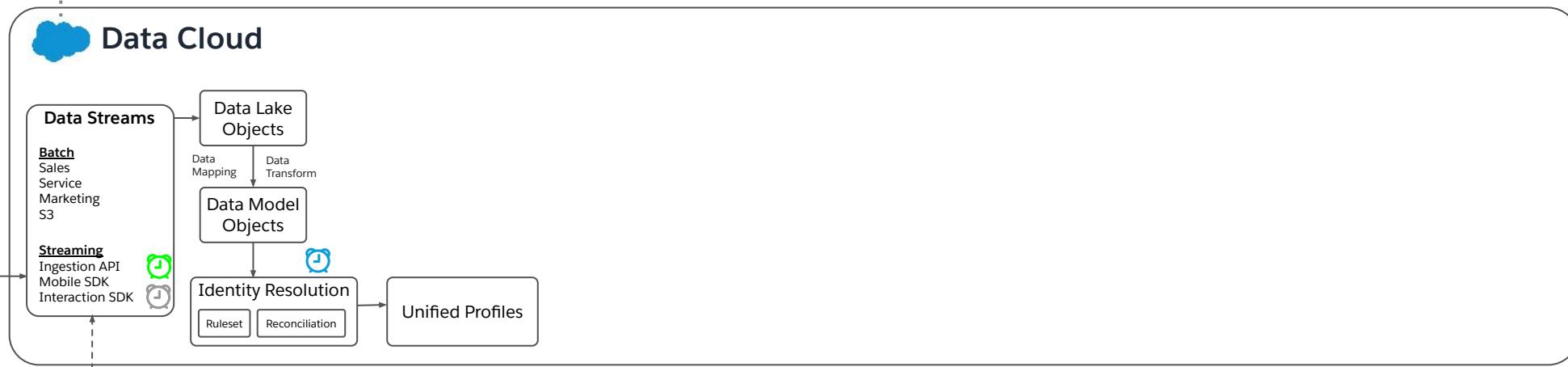
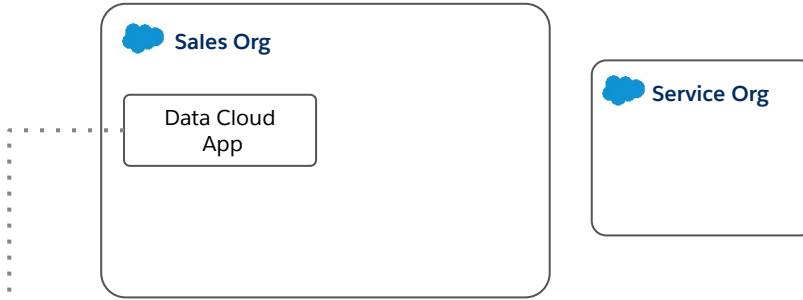
5 mins - 24 hrs

Hourly

Daily

Real-Time

Scheduled or Async



Data Cloud

Insights and Data Actions

Frequency

Real-time

2 mins

Up to 15 mins

12 hrs

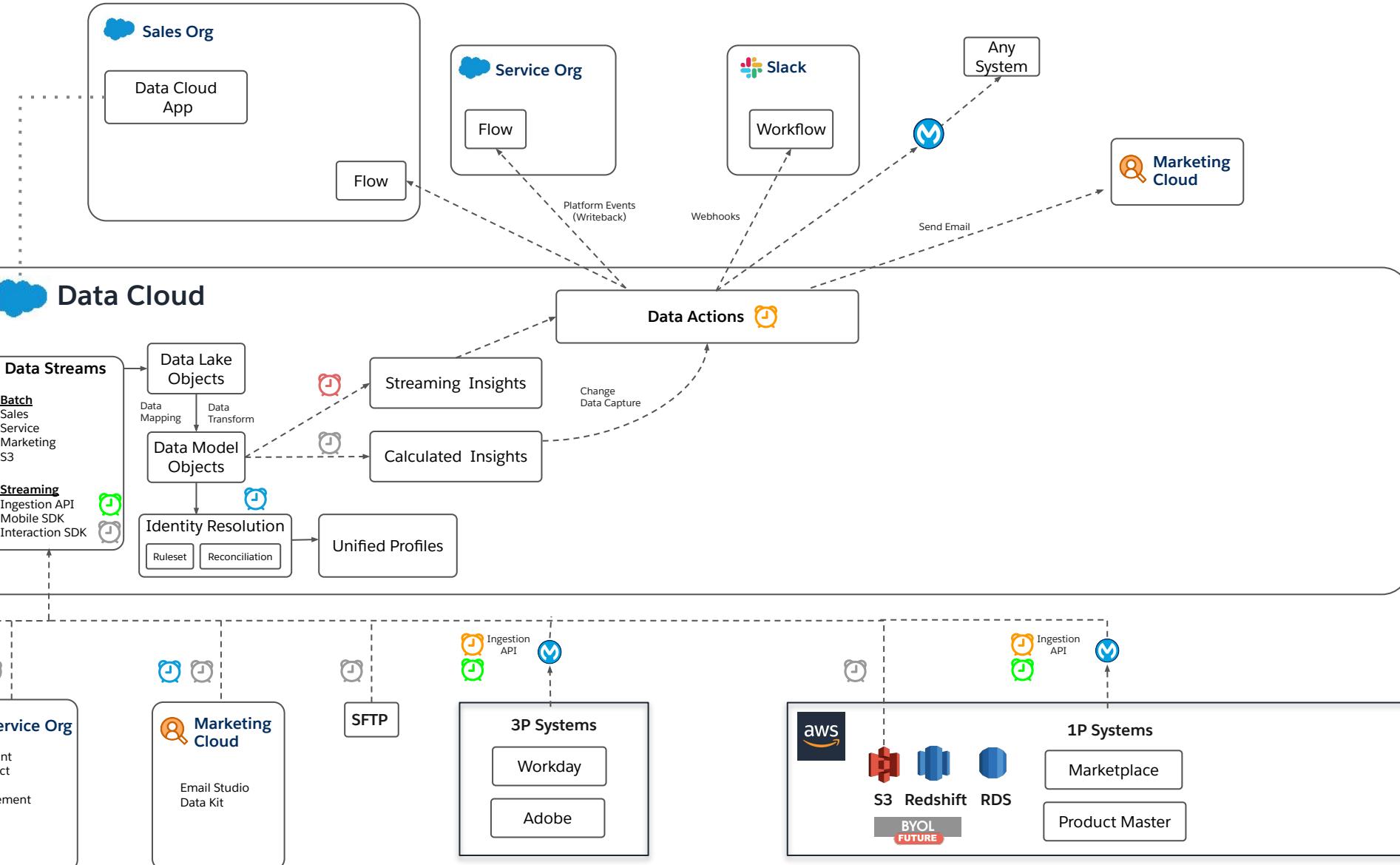
5 mins - 24 hrs

Hourly

Daily

Real-Time

Scheduled or Async



Data Cloud

Data Cloud APIs and CRM Enrichment

Frequency

Real-time

2 mins

Up to 15 mins

12 hrs

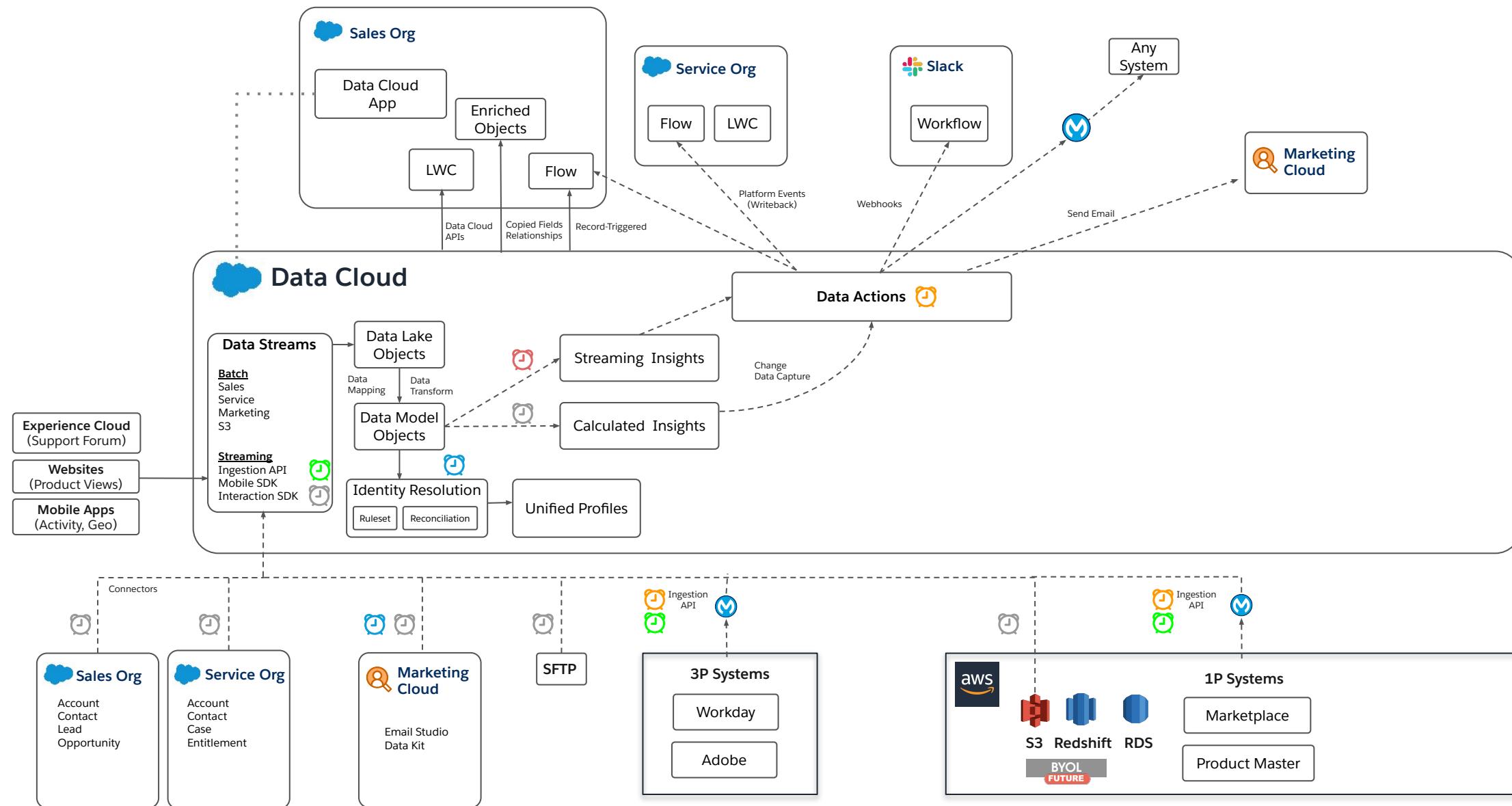
5 mins - 24 hrs

Hourly

Daily

Real-Time

Scheduled or Async



Data Cloud

Train ML Models with Data Cloud data and run predictions

Frequency

Real-time

2 mins

Up to 15 mins

12 hrs

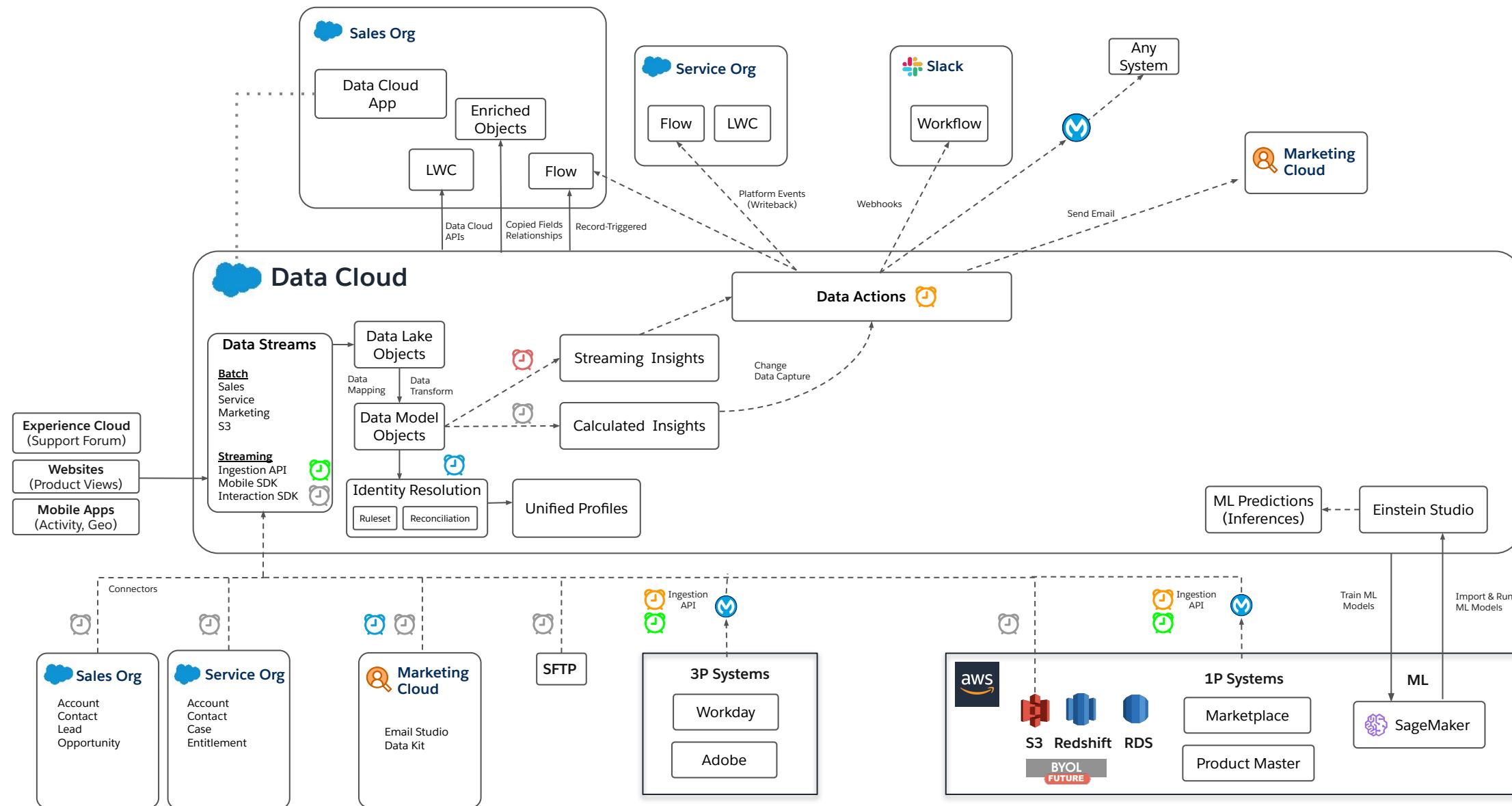
5 mins - 24 hrs

Hourly

Daily

Real-Time

Scheduled or Async



Data Cloud

Marketing Segmentation and Activation

Frequency

Real-time

2 mins

Up to 15 mins

12 hrs

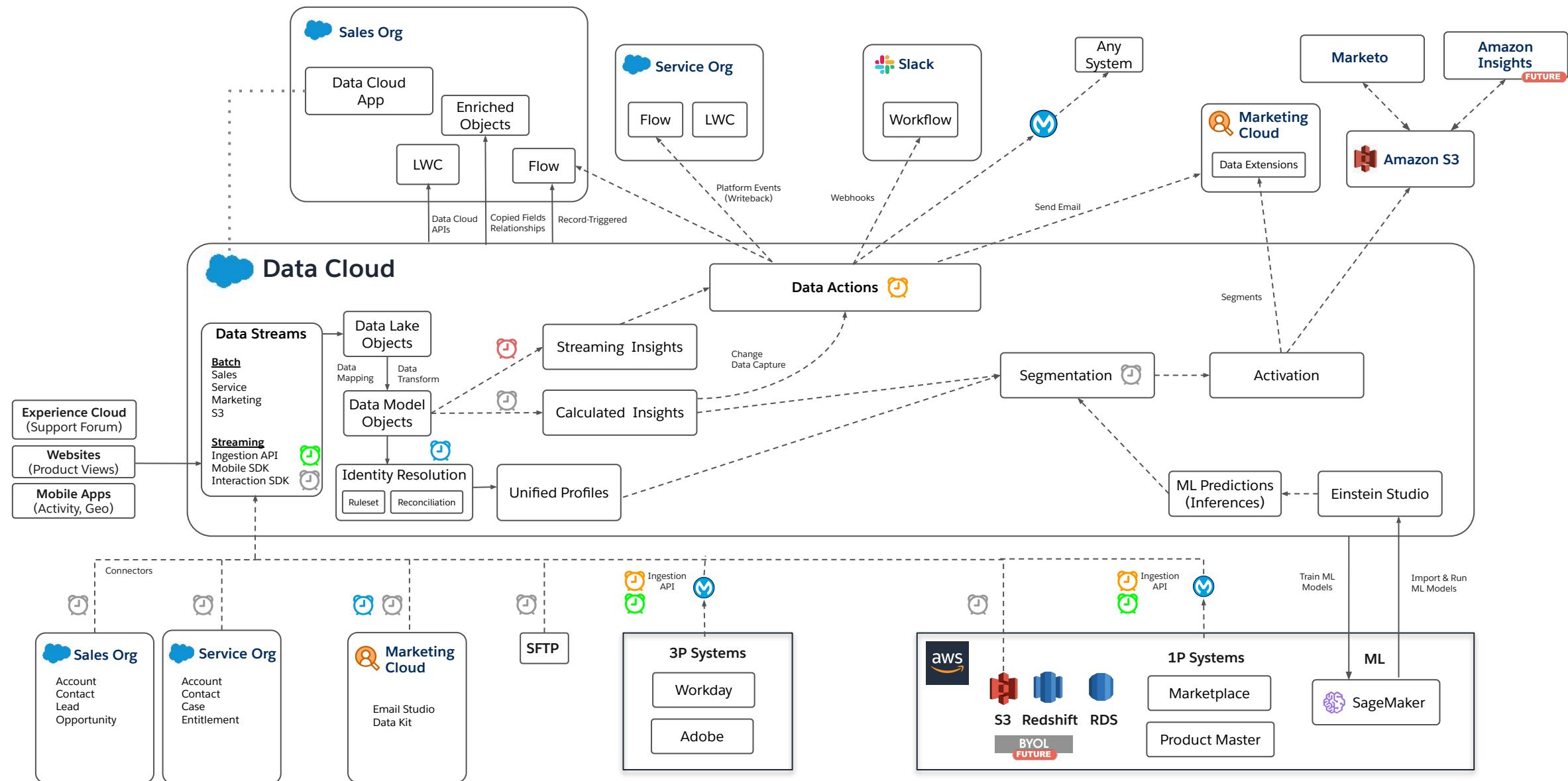
5 mins - 24 hrs

Hourly

Daily

Real-Time

Scheduled or Async



Data Cloud

Analytics

Frequency

Real-time

2 mins

Up to 15 mins

12 hrs

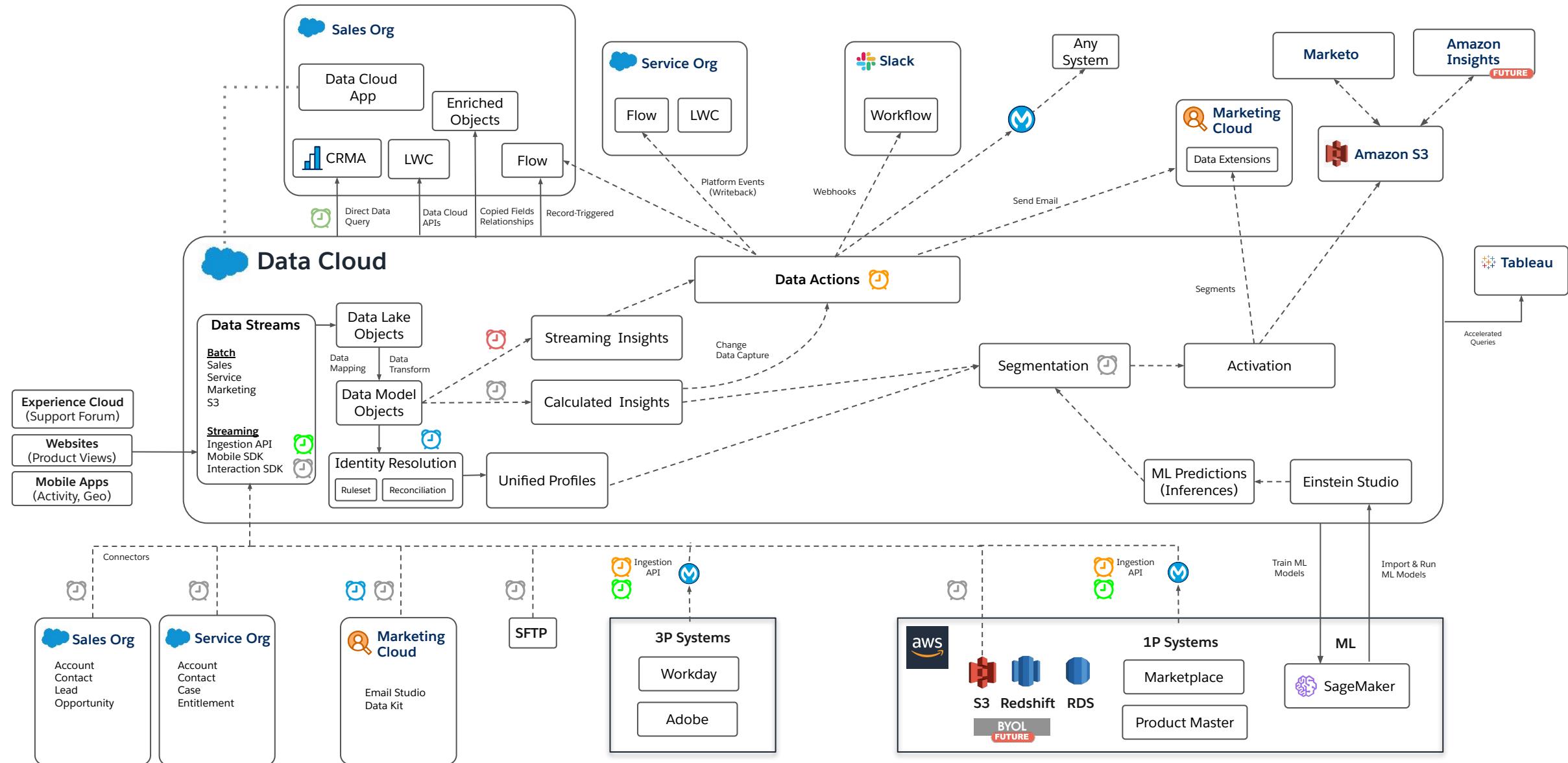
5 mins - 24 hrs

Hourly

Daily

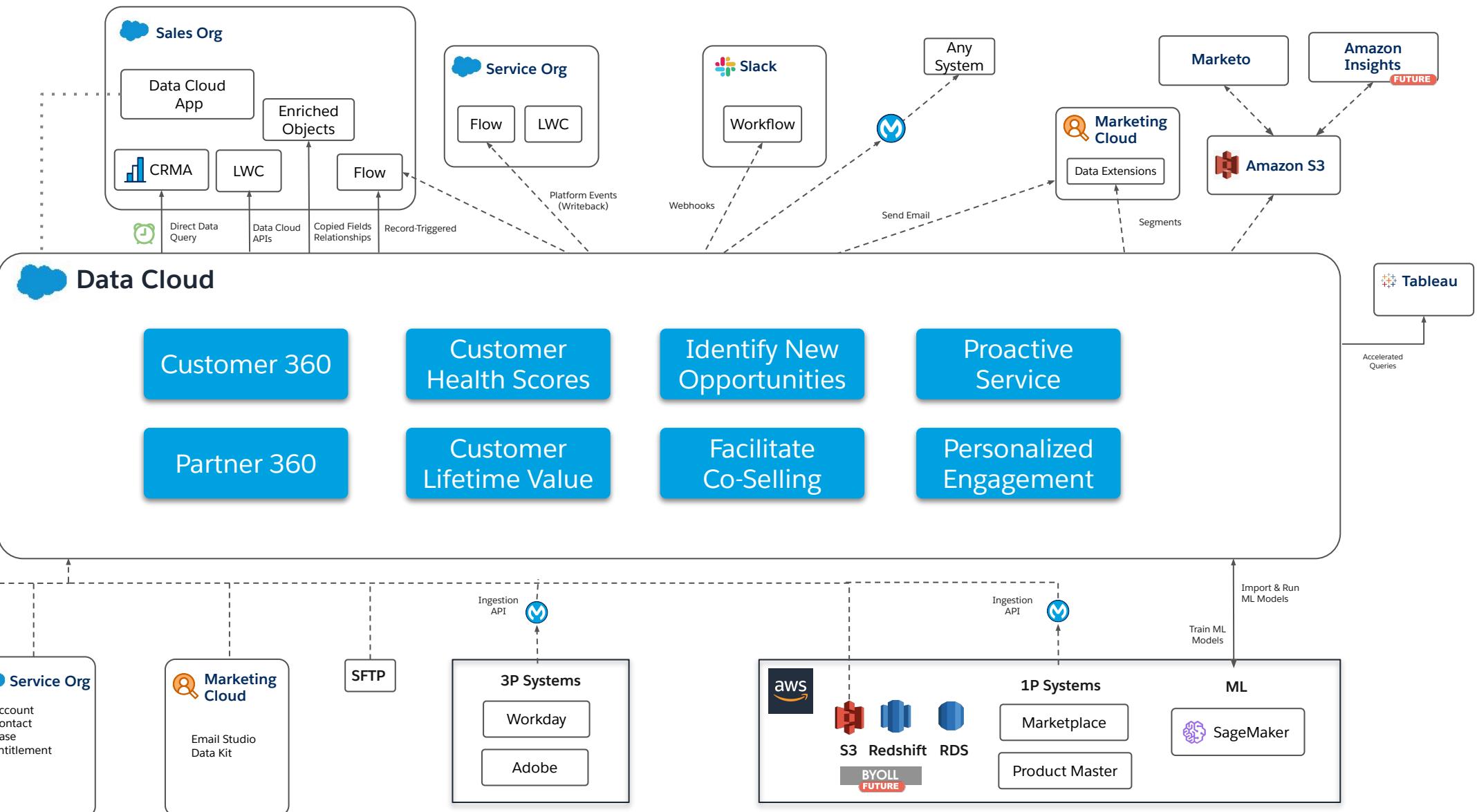
Real-Time

Scheduled or Async



Data Cloud

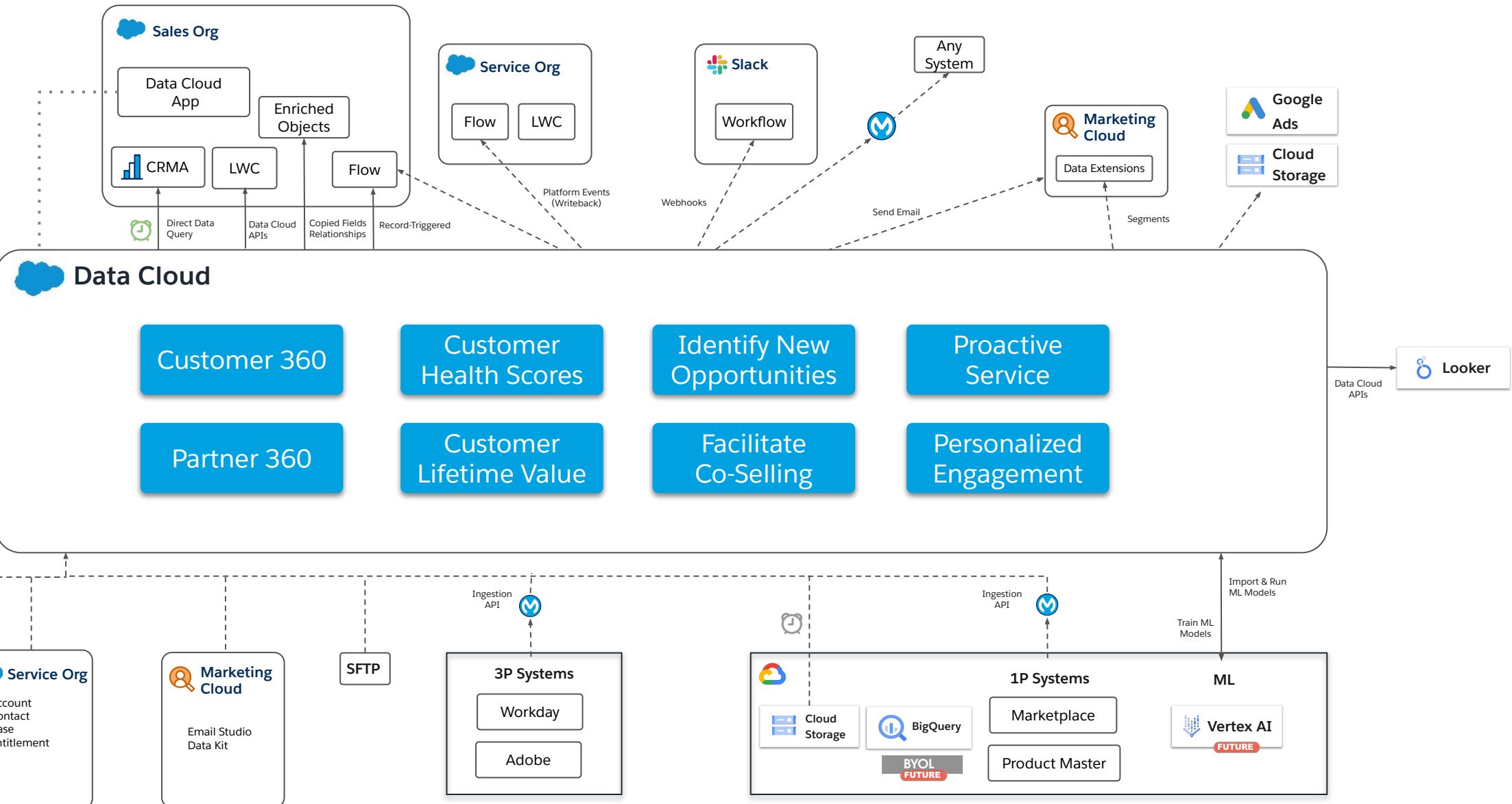
Vision for an enterprise architecture using Data Cloud



Data Cloud



Vision for an enterprise architecture using Data Cloud + Google

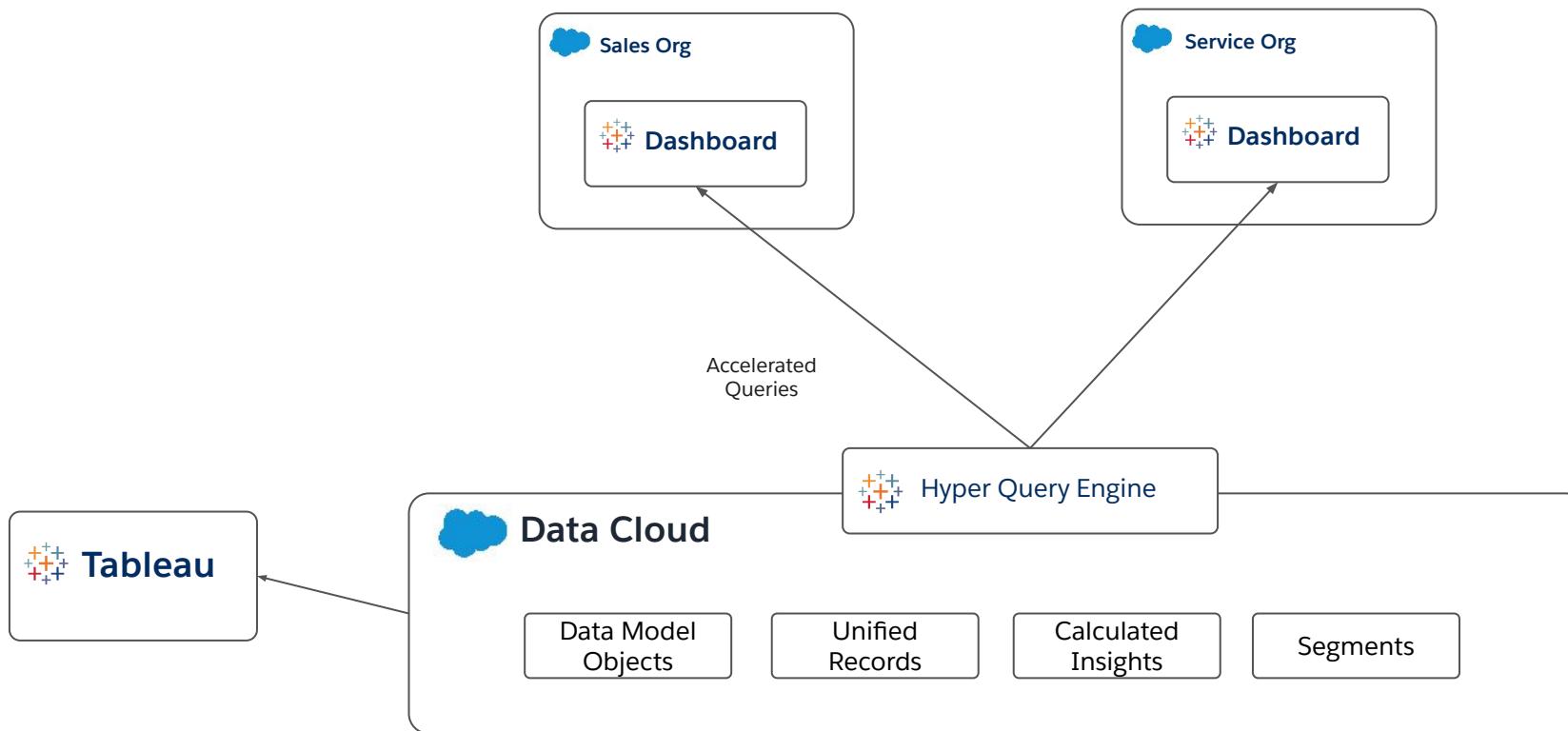


Data Cloud Analytics

Use Data Cloud data in Tableau dashboards.



Real-Time

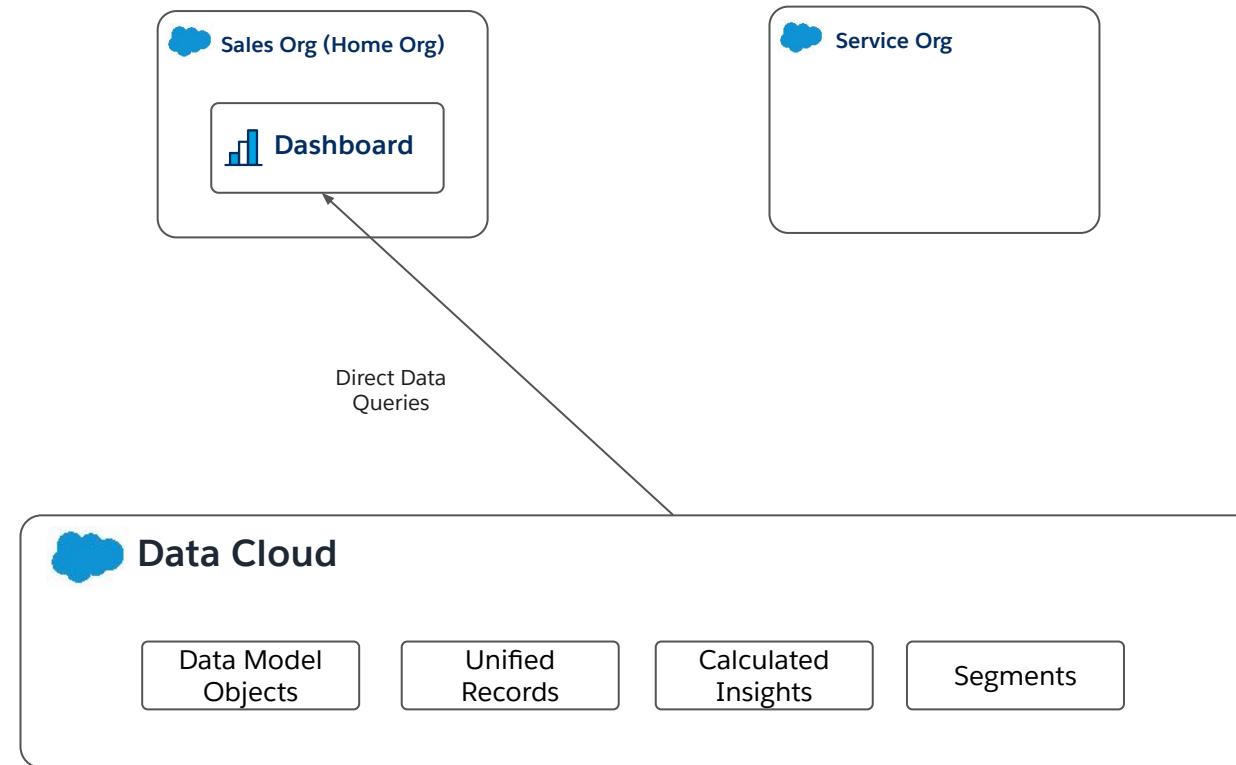


Data Cloud Analytics

Use Data Cloud data in CRM Analytics dashboards.

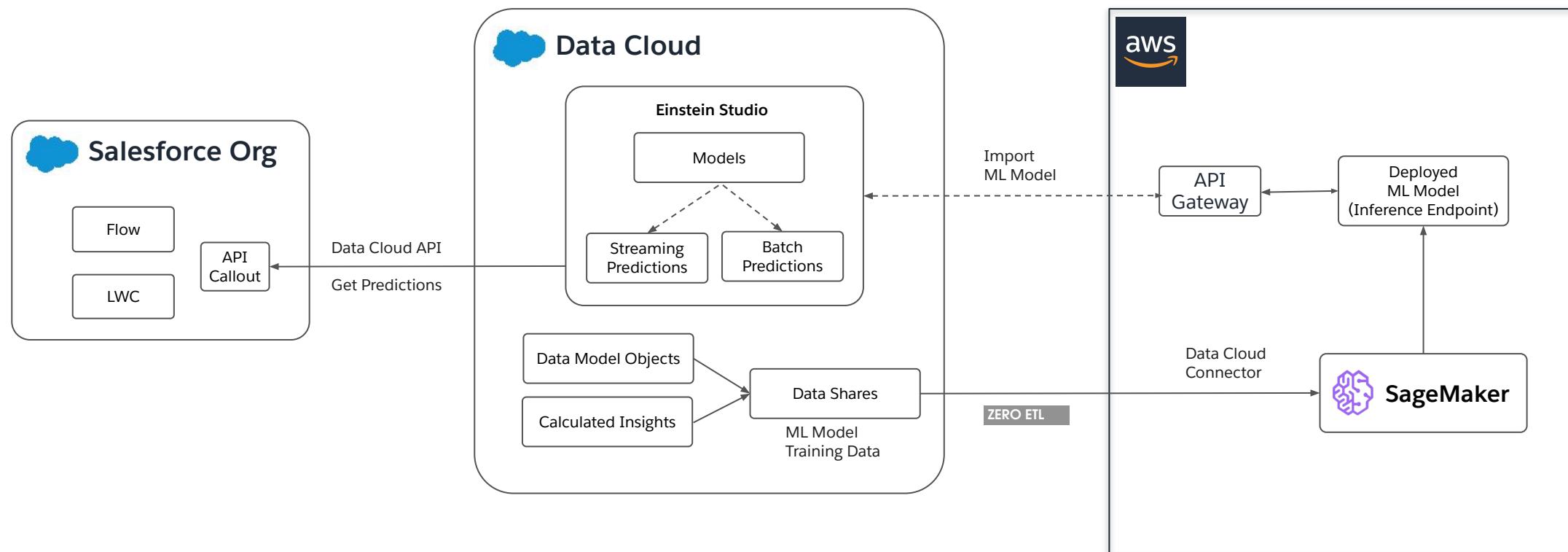
 CRM Analytics

Real-Time



Data Cloud Bring Your Own ML Model

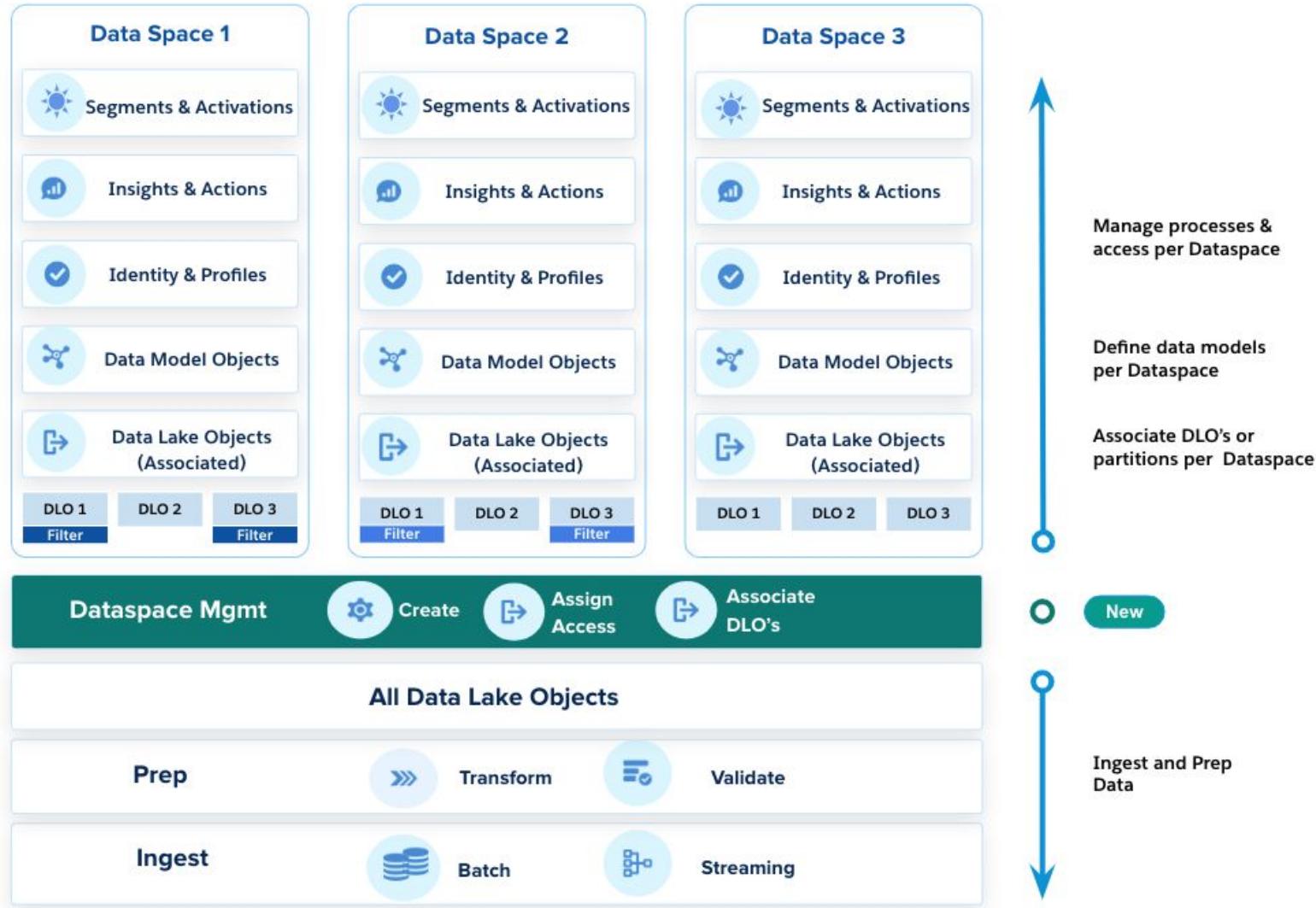
Calculate predictions from your Data Cloud data using SageMaker ML Models.



Data Spaces



- Create Data Spaces for **brands, regions, business units**
- **Ingest data from the source once** and associate into one or multiple Data Spaces as necessary.
- Customize and build models to represent each Data Space **with full autonomy**.
- Build unified profiles, insights, and segments in the context of Data Spaces.
- Grant users access to Data Spaces with **permission sets** to ensure data compliance needs.





Data Cloud Customer Use Cases



Data Cloud Resources

Data Cloud Resources



Data Cloud

- [Discover Data Cloud Demo \(1 min\)](#)
- [Demo by Data Cloud product lead \(MK\)](#)
- [Data Cloud \(product page\)](#)
- [Data Cloud documentation](#)
- [Data Cloud Video Library & Trailhead Modules](#)
- [Data Cloud Feature Release Hub](#)
- [Data Cloud Technical Capabilities Explained](#)
- [Bring All Your Customer Data Together in Data Cloud](#)

Data Cloud for Tableau

- [Data Cloud Data in Tableau](#)
- [Data Cloud for Tableau \(product page\)](#)
- [What is Salesforce Data Cloud for Tableau](#)
- [Faster Analytics with Hyper Query Engine](#)

MuleSoft & Data Cloud

- [Connect any data with MuleSoft and Data Cloud \(video\)](#)

- [MuleSoft Salesforce Data Cloud Connector](#)

Data Cloud for Marketing

- [Data Cloud for Marketing \(product page\)](#)
- [Data Cloud for Marketing Use Case eBook](#)



**Thank
You**