

Our Training Scenario



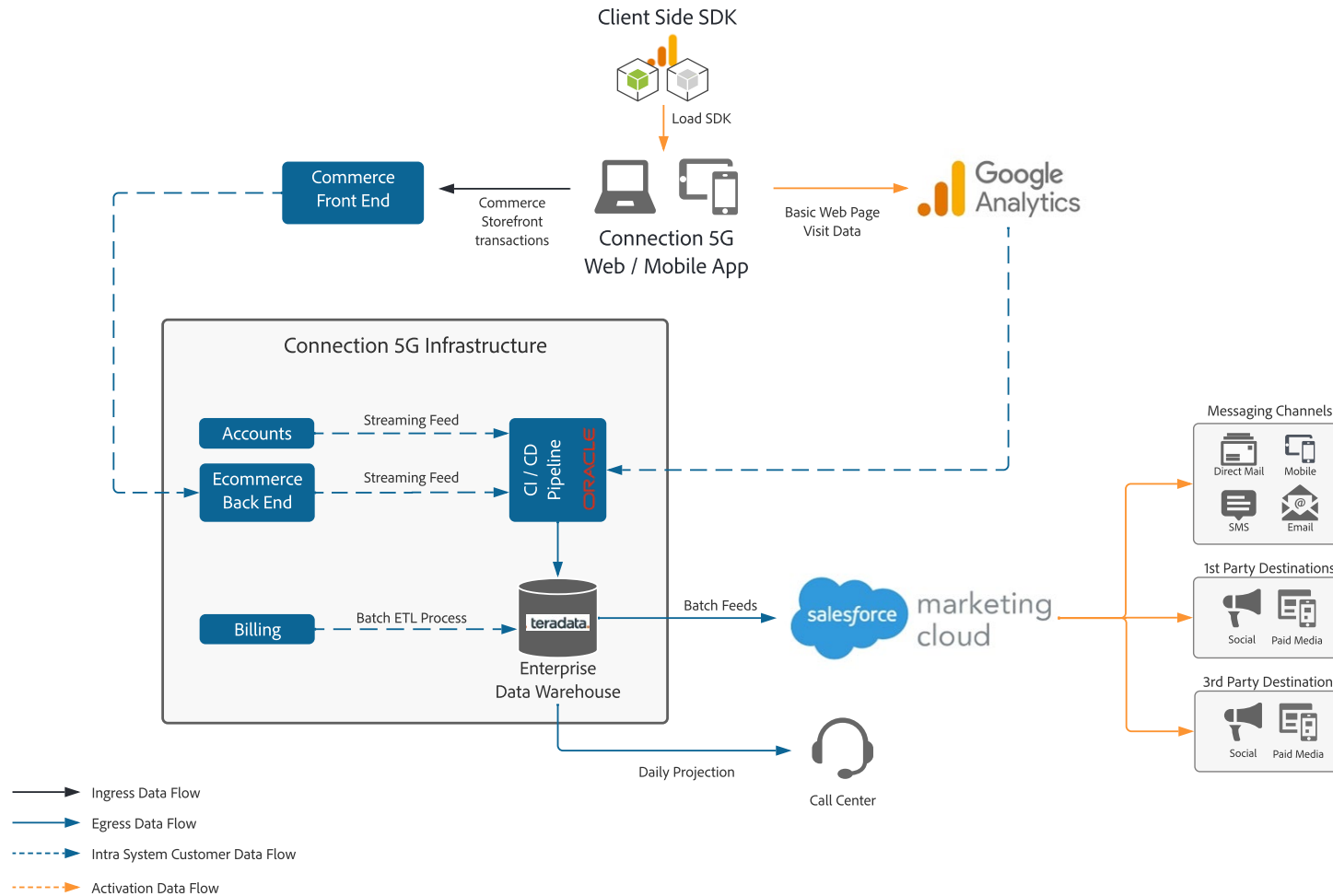
Connection 5G *(Our fictitious customer)*

Industry: Telecommunications

Key Strategic Initiatives:

- **Unlock New Opportunities:** Continue to drive new customer acquisition and retention but win back lost customers and cross-sell, suppress to save money
- **Hyper-Personalization:** Deliver engaging content through relevant, tailored personalized experiences
- **Increase ROI on Customer Data:** Move towards a unified view of customer by consolidating disparate views of customer accounts, standardize data usage and privacy workflows
- **Cost Optimization:** Reduce operational costs via increased speed, scale and flexibility

Connection 5G Architecture: System View

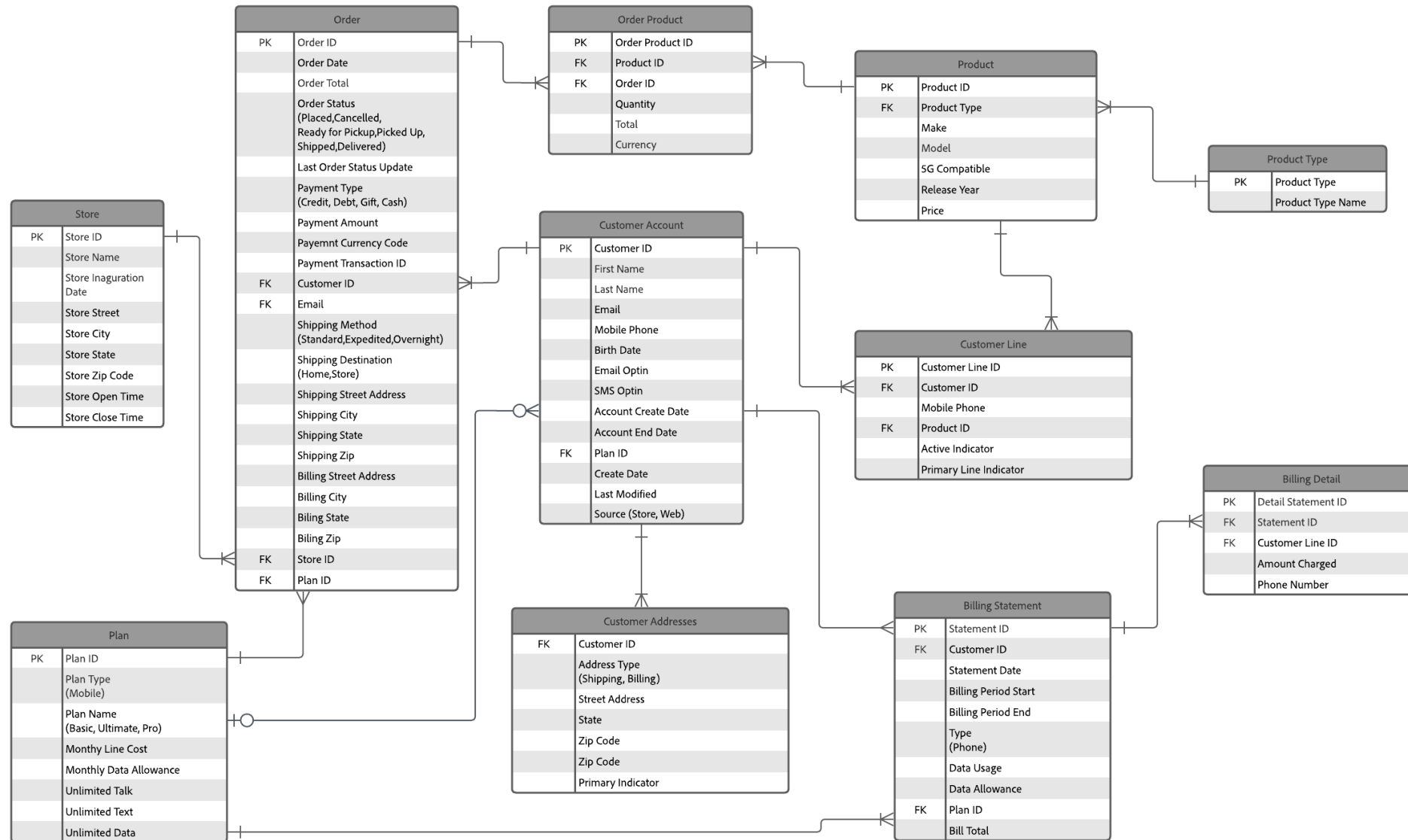


- **Lack of onsite personalization** given no existing architecture is available to expose the warehouse data in a consistent fashion for marketing to leverage
- **Scalability & reliability** are a concern as IT teams are constantly being asked to expose the data within the warehouse to the various marketing applications within the marketing stack. Long term to plans to re-architect the warehouse and move to Redshift or Snowflake
- **Data Governance & privacy** are key priorities with all systems moving forward. Need to centralize all governance and privacy for internal teams and marketing teams when working with the customer data

Connection 5G: System Description

- **Centralized data warehouse in Teradata used to unify all customer data** but currently lacks many of the marketing application feedback loops
- **Commerce system fully integrated with CI/CD pipeline** but requires IT effort to exposes new events to the business requests
- **Google Analytics deployment exists** but primarily used to understand basic page traffic. Significant interest with gaining access to the data set and feed it back to their warehouse for data science and analysis.
- **Billing system is a batch based daily job that pushes to warehouse** but there are plans to integrate it into the CI/CID pipeline over the long term
- **IVR system currently works off a projection of data from the warehouse** but there is need to make data more accessible to the call center to deliver more contextualized conversations / offers
- **Salesforce** being leveraged by marketing to send email, SMS and mobile communications to customers. Significant investment by marketing into this application but currently heavily batch-based feeds with data coming from the warehouse

Connection 5G – Data Warehouse View



Connection 5G – Streaming Payloads

Orders

```
{
  "orderId": "12345",
  "orderDate": "2017-09-26T15:52:25+00:00",
  "orderTotal": 1045.00,
  "orderStatus": "placed",
  "lastOrderStatusUpdate": "2017-09-26T15:52:25+00:00",
  "payments": {
    "paymentType": "credit|debit|cash",
    "paymentAmount": 1045.00,
    "paymentCurrencyCode": "USD",
    "paymentTransactionID": "PYMNT100"
  },
  "customerID": "C100",
  "shippingDestination": "store|home",
  "storeId": "STR100",
  "shippingstreet": "345 Park Ave",
  "shippingcity": "San Jose",
  "shippingstate": "CA",
  "shippingpostalCode": "95111",
  "shippingMethod": "standard|expedited|overnight",
  "shippingAmount": 0.00,
  "plan": {
    "ID": "PLN100",
    "name": "Ultimate",
    "type": "Phone",
    "monthlycost": 45.00
  },
  "source": "web",
  "productOrders": [
    {
      "productID": "P100",
      "make": "Apple",
      "model": "Iphone 13",
      "quantity": 1.0,
      "price": 1000.00,
      "currencyCode": "USD"
    }
  ]
}
```

Ecommerce Checkout

```
{
  "checkoutDate": "2017-09-26T14:52:25+00:00",
  "customerID": "C100",
  "email": "john.doe@abc.com",
  "purchaseID": "12345",
  "orderStatus": "placed",
  "shipping": {
    "shippingDestination": "store|home",
    "shippingMethod": "standard|expedited|overnight",
    "shippingAmount": 0,
    "shippingstreet": "345 Park Ave",
    "shippingcity": "San Jose",
    "shippingstate": "CA",
    "shippingpostalCode": "95111"
  },
  "productListItems": {
    "productID": "P100",
    "model": "Iphone 13",
    "priceTotal": 1000,
    "quantity": 1,
    "currencyCode": "USD"
  }
}
```

Note:

Real-time data feed directly from the commerce system storefront. These are only web orders shipped to home

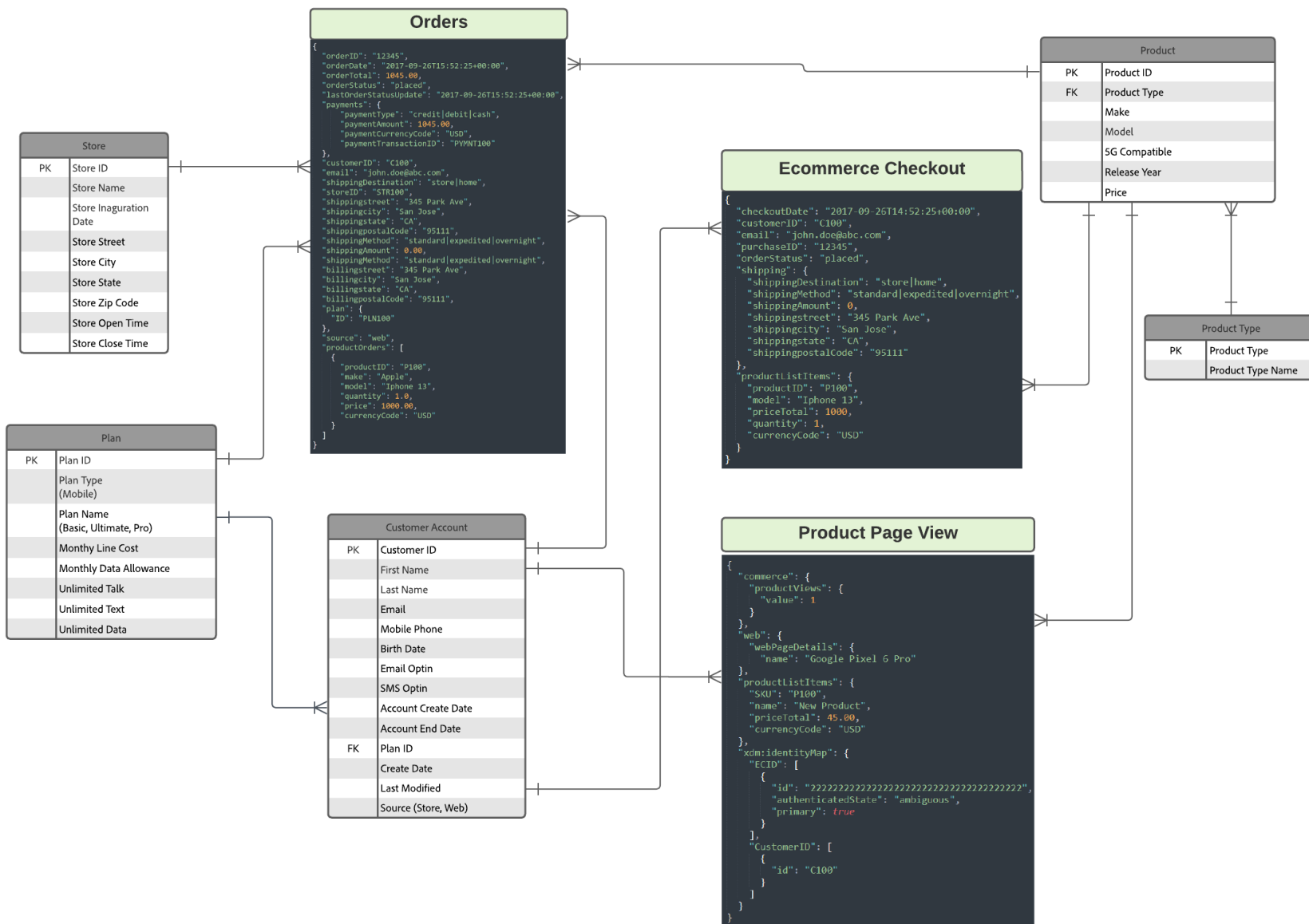
Product Page View

[illegible]

Note:

Real-time data feed from the Adobe Web SDK capturing page view traffic

Connection 5G – Streaming Payloads ERD



Customer Data Architecture: Entity Descriptions

Source Entity name	Description	General Notes
Customer Account	Entity contains all the customers who bought a product or has subscribed for a plan with Connection 5G. This could also have guests who just purchased a phone and still have not enrolled for a phone plan	A customer ID is a unique key that is assigned at time of account creation. A customer can only ever have 1 account. Email address is always unique to a customer ID. The phone number listed on the account table is meant to be unique but has been found to be shared across various accounts
	A customer can be deactivated at some point but remain in the customer table even if they mark purchases.	
Orders (Streaming)	Streaming payload for orders placed by a guest or a customer for a plan or a product or both. Order events are always streamed in Connection 5G and are the preferred source for all order information.	Every order is recorded using an email address which must always be supplied at time of checkout or in the store purchases. Customer ID is optionally populated and typically only filled in if the customer is logged into their account at time of purchase or provides the information at time of store checkout.
Order (Warehouse)	Contains all the historical order data of customers. This is maintained in the Customer Data Warehouse and gets a feed from the Order system. This data is always delayed compared to the Orders (streaming) feed.	
Product Page View	Streaming payload from the Experience Platform Web SDK which contains information about someone visiting a product page.	
Ecommerce Checkout	A single event exposed by Connection 5G IT teams from the ecommerce system for when someone performs a checkout. The event contains the relevant information needed for marketing teams to send transactional communications stating and order is placed.	Every checkout is recorded using an email address which must always be supplied at time of checkout or in the store purchases. Customer ID is optionally populated and typically only filled in if the customer is logged into their account at time of purchase or provides the information at time of store checkout.
Billing Statement	Contains the Billing statement generated for a customer on monthly basis. This is a summary of the bill for all the customer phone lines.	
Product	Contains all the products sold by Connection 5G. Example, phones and accessories	
Plan	Contains the service plans offered by the Connection 5G to its customers. Examples, Basic, Ultimate, Pro etc.	
Store	Contains all the stores where Connection 5G sells their products. It has information about store open and end dates, store address etc.	



Proposed Connection 5G Architecture

Connection 5G Use Cases



JOURNEY OPTIMIZER

Orchestrate the curb-side / in-store pickup communication process starting from when an order is placed to when an order has been picked up

Channels

Email, Push, SMS



REAL-TIME CDP (RE-MARKETING)

Activate all profiles who have visited an iPhone 13/Pixel 6 product page and no order exists for that device or that device is not currently an active line on the customer's account

Channels

Social Media / Advertising
(1st Party Advertising)



REAL-TIME CDP (UPSELL)

Find all profiles who have a total billing data usage in the last 6 months > 140 GB, have a rolling 6-month average monthly data usage \geq 20 GB and are not on the ultimate phone plan

Channels

Social Media / Direct Export
(1st Party Advertising)

Phase 1 – Connection 5G Use Cases



JOURNEY OPTIMIZER

Orchestrate the curbside / in-store pickup communication process starting from when an order is placed to when an order has been picked up

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Email, Push, SMS



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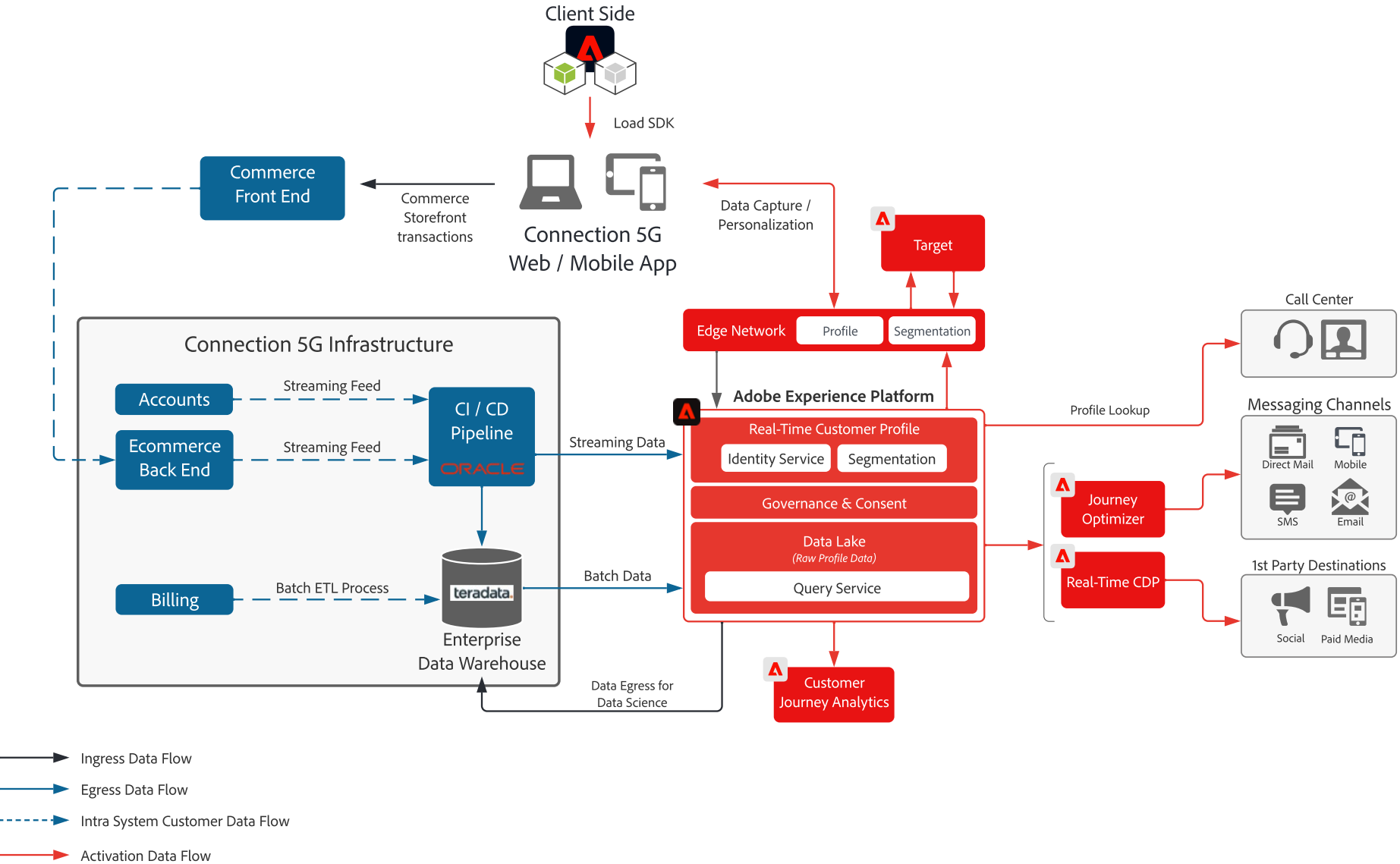
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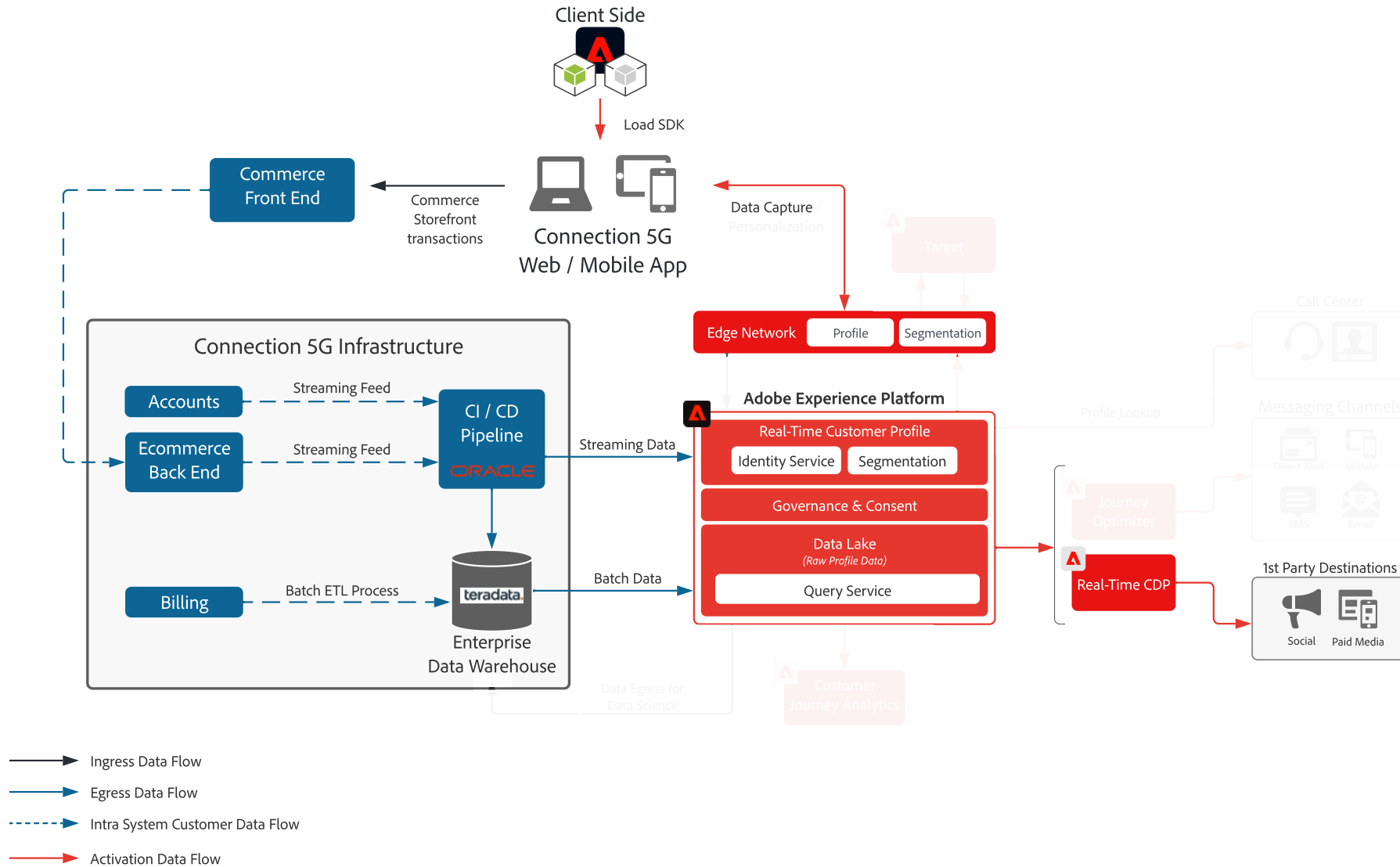
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Proposed North Star Architecture Connection 5G



Proposed Phase 1 Architecture Connection 5G



Proposed Data Pipeline Architecture

