

ArMADA - Arvind Made Analytical Digital Assistant

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Arvind Brands: Digital Assistant

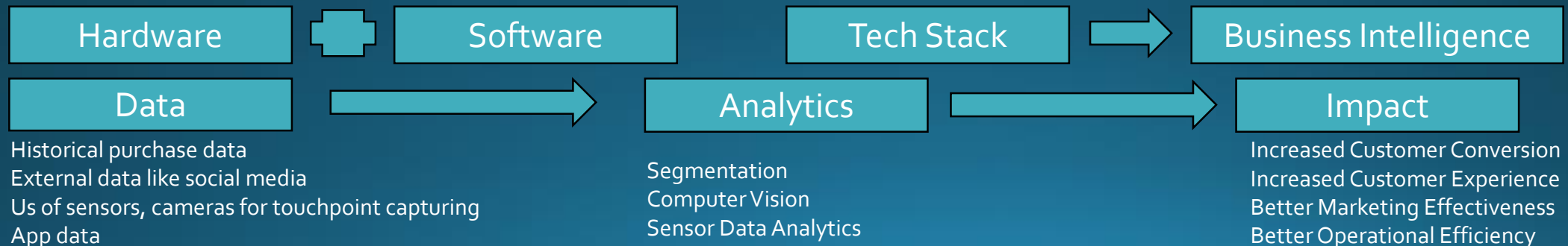
Context

- Customer Identification, prioritization and Engagement are the key factors to increase Customer Experience and increasing the Customer Life-Time Value
- In the age of e-commerce where e-retailers record every touch point of their customers and leverage that for personalized customer experience, stores lack behind in that area
- With the advent of new technologies in hardware and software both, stores stand a chance to get a competitive advantage

Objectives

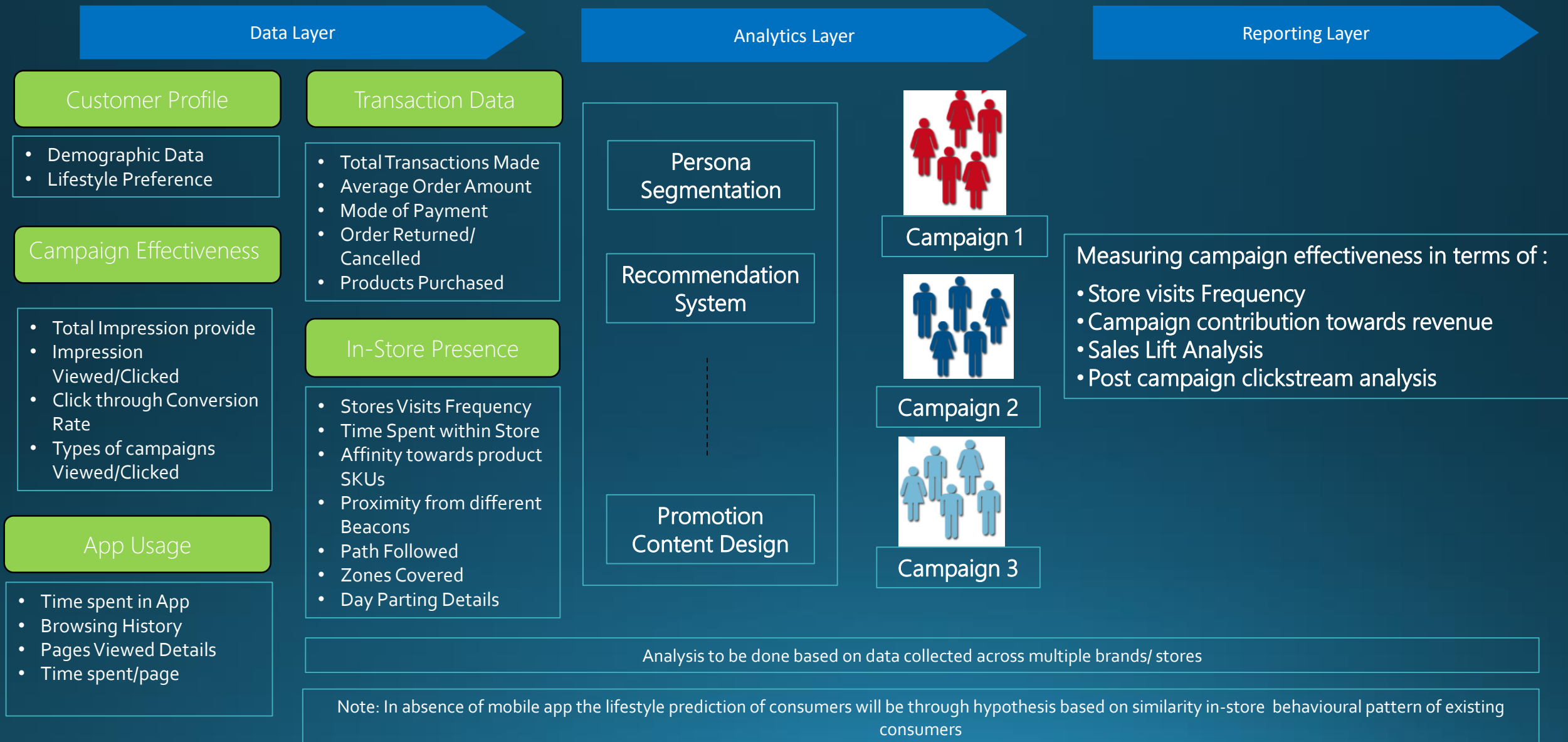
- Analyze past purchasing behavior (in the store) and other activities outside the store (Digital Presence) for identification and prioritization of the customers
- Map the customer journey in the store for better customer service, marketing activities and operational efficiency
- Analyze customer behavior within store by sentiment analysis, feedback etc. for improvement in conversion rates through better customer service.

Proposed Solution



**Identify & prioritize
key customers entering a store**

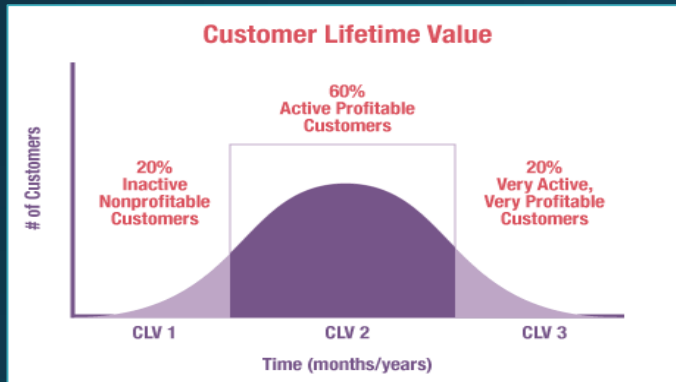
Advanced personalization using competitive information - Beacons



Acquiring customers with future potential through DMP (Data management platform)

Identifying Potential Customers from 1st Party Base

Estimating future potential customer using first party DMP data and adding monetary value to business through better engagement with them



Location	Total Spend	Customers	CAC	CLV	Revenue	Profit *
Adwords Ocean	\$100	100	\$1	\$10	\$1000	\$900
Facebook River	\$150	50	\$3	\$30	\$1500	\$1350
Lake Microsoft	\$250	25	\$10	\$100	\$2500	\$2250

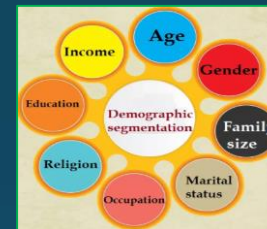
Understanding the right segment of customers bringing value to business with minimum acquisition cost.

Understanding External Personas for multiple segments

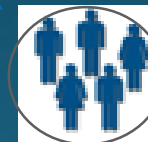
Segmenting target customers and profiling them in homogeneous groups using 2nd and 3rd party data like product usage, demographics, behaviour etc..



Browsing Behaviour Segments



Demographic Segments



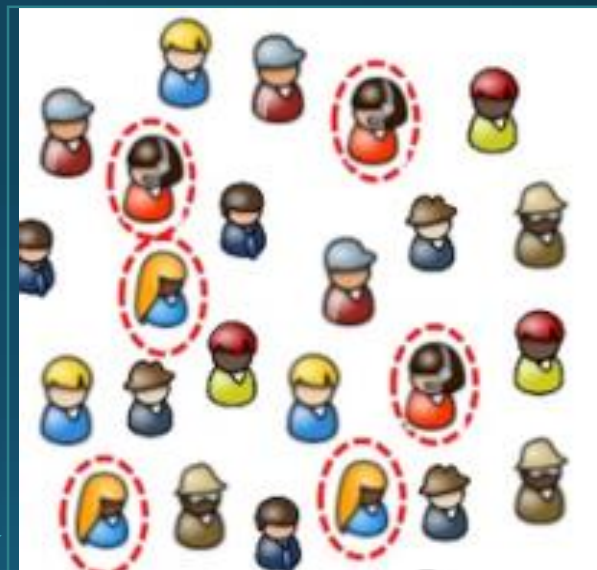
-> Deal Hunters
-> Public Transport Users
-> Price sensitive
-> Holds Loyalty cards
-> Prefer offline Store

-> Food Lovers
-> Movie Goers
-> Youth Base
-> Rural Consumers
-> M Wallet users
-> Tech Enthusiast
-> White Collar Employ

-> Smart Phone Users
-> Urban Consumers
-> Credit Card Users
-> Brand Centric
-> International Traveller
-> Fleet Taxi Users
-> Jewellery Buyers

Identifying right target audience based on personas identified

Extrapolating identified persona information for targeted segment and mapping them with universal cookie base through look-alike models



PrecisionMatch 3rd Party Data Set

People who look like
Converting Audiences

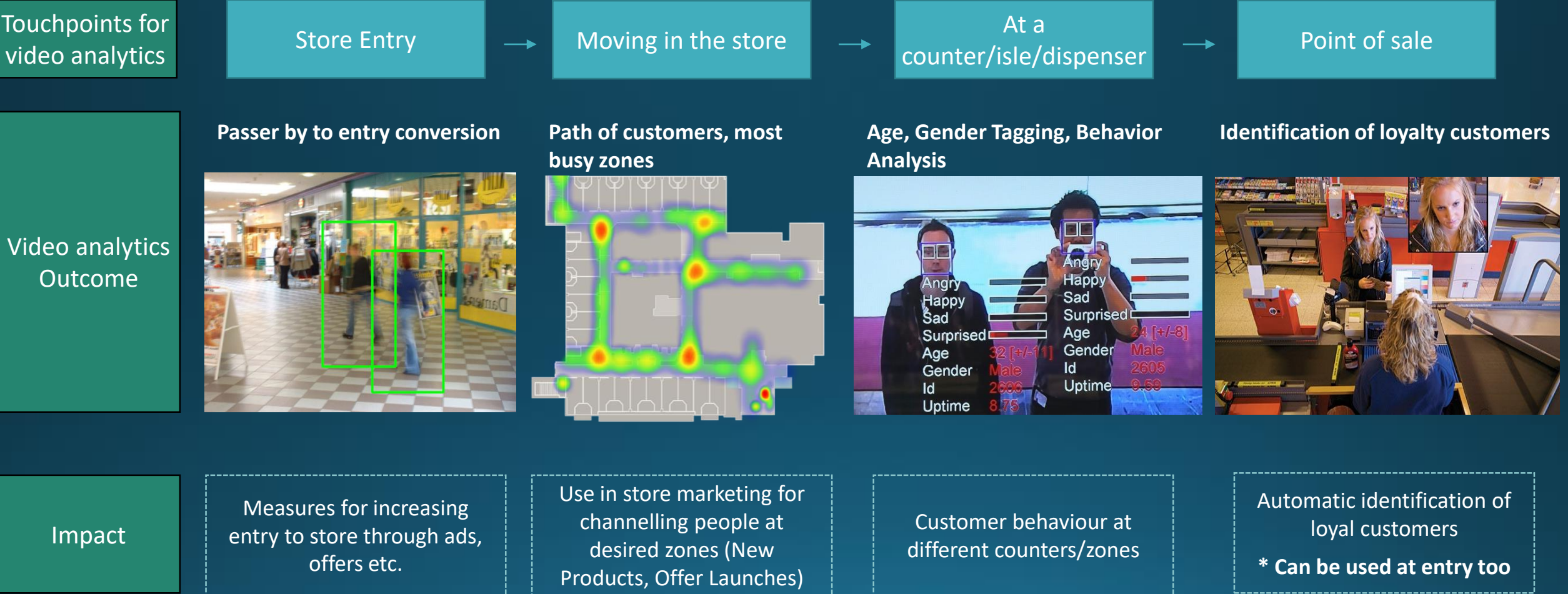
**Map customer Journey
in store & customer behavior**

Technologies for capturing customer touchpoints

Customer Effort	Technology	Advantages	Utility	Drawbacks
No	Wi-Fi Tracking	<ul style="list-style-type: none"> • Use of in-house Wi-Fi • Almost equivalent utility as Video Analytics 	People counting, Dwell Times, Repeat Visitors, People tracking	<ul style="list-style-type: none"> • Limits to a sample of audience • Inaccurate-short wavelength RF
No	3D Stereo Video	Additional advantages: Surveillance, Queue management, Predictive Solution	People counting, Dwell Times, Repeat Visitors, People tracking	<ul style="list-style-type: none"> • High Infrastructure cost • High Processing Cost • Complex algorithm execution • Treatment of depth
No	Infrared Beams	<ul style="list-style-type: none"> • Low cost • Easy set-up 	People counting	<ul style="list-style-type: none"> • Cannot recognize direction • Double counts for entering and exit • Miscount in groups
No	Thermal Imaging	<ul style="list-style-type: none"> • Low cost • Easy set-up 	People counting	Disturbances with other objects in place
Yes	BLE Beacons	<ul style="list-style-type: none"> • Directly contact the customer, in real-time • Push Notifications 	People counting, Dwell Times, Repeat Visitors, People tracking	<ul style="list-style-type: none"> • Audience size is significantly less • Beacon compatibility with Android is very less

Based on store size and cost, any of these or combination can be used to capture the customer touchpoints

Impact of Capturing Customer Touchpoints



Loyalty Customer Identification, Behaviour Analysis, Dwell Time at different counters

Solution Architecture

WiFi, RFIF, NFC Data Analytics (Architecture)

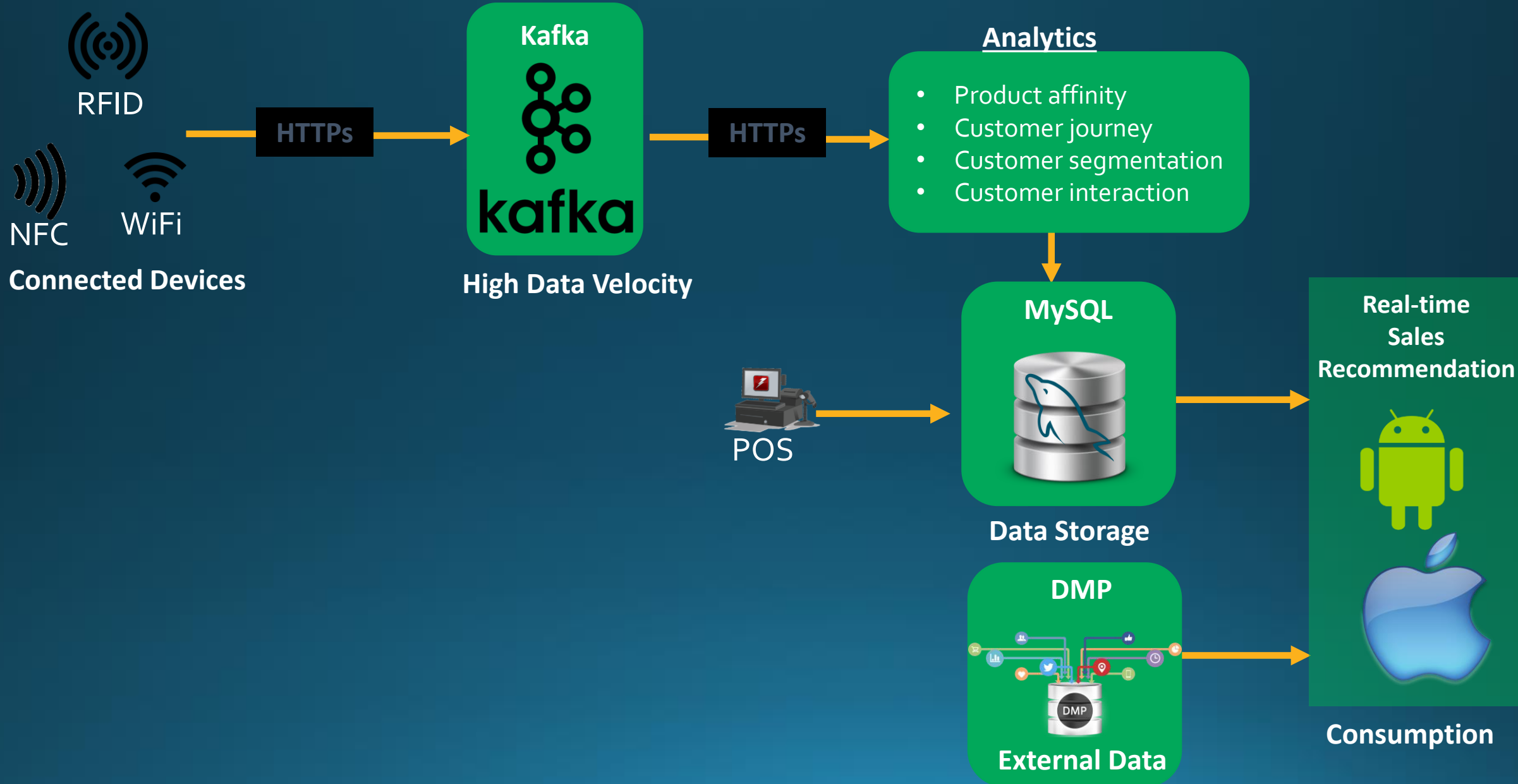


Image & Video Data Analytics (Architecture)



Raspberry Pi
w/ Camera

HTTPs



Data Buffer

REST
APIs

AWS Lambda



Analytics

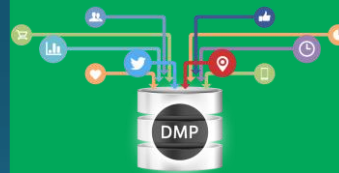
- People counting
- Customer identification
- Brand identification
- Emotion detection
- Instore customer journey
- Dwell time

Real-time
Sales
Recommendation



Consumption
Layer

DMP



External Data

MySQL



Data Storage

- * Ra-Pi Model B w/ 5 MP Camera
- * Elementz USB Adapter/Charger
- * SD Card (128 GB) – 160 mins

Total Cost: \$85