



# Customer IAM

Fundamental difference &  
Lessons from real-world case of  
modernization

TIIME 2020 / Jukka Lauhia of KPMG

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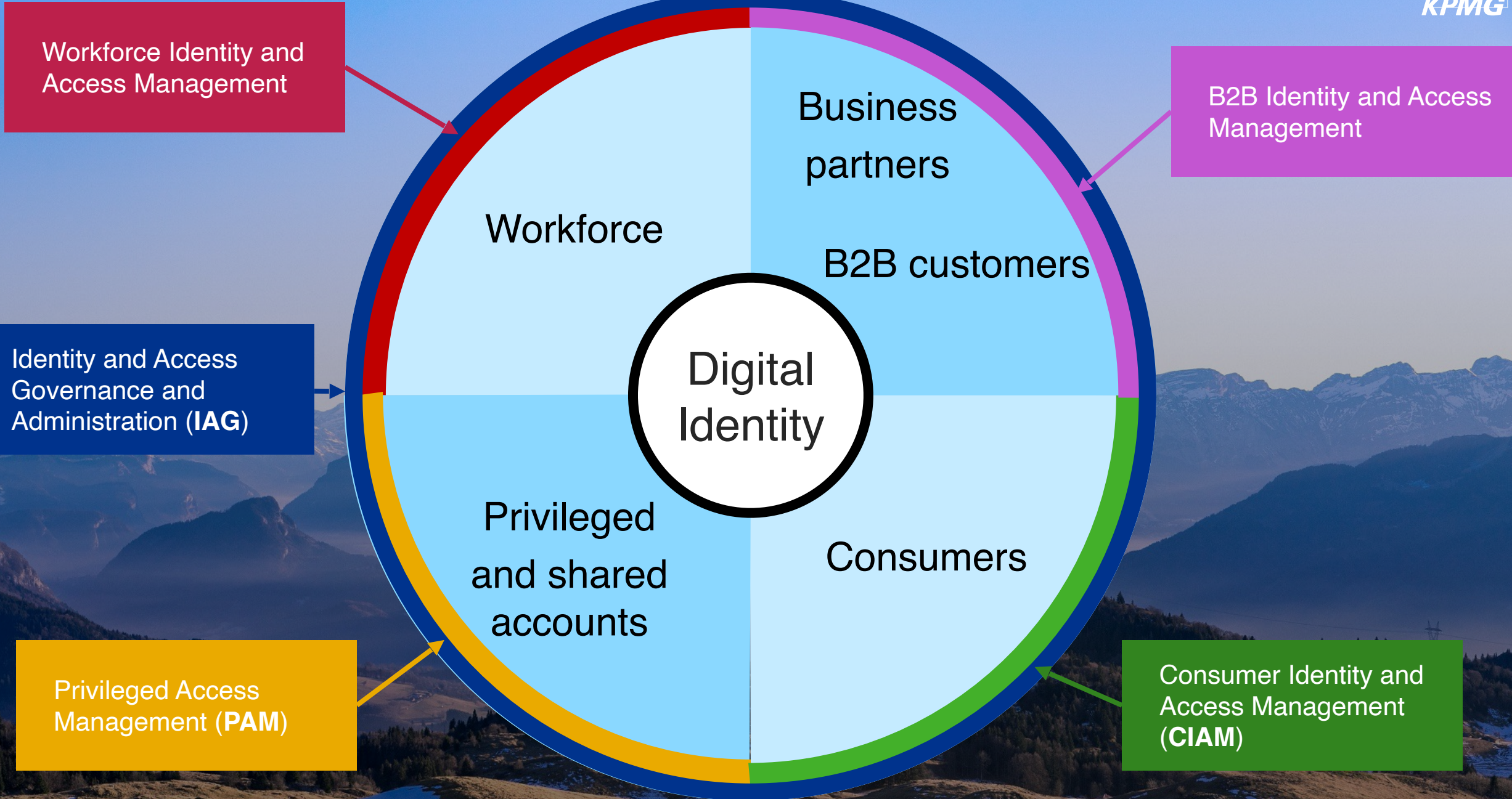




# Customer IAM on Digital Identity landscape







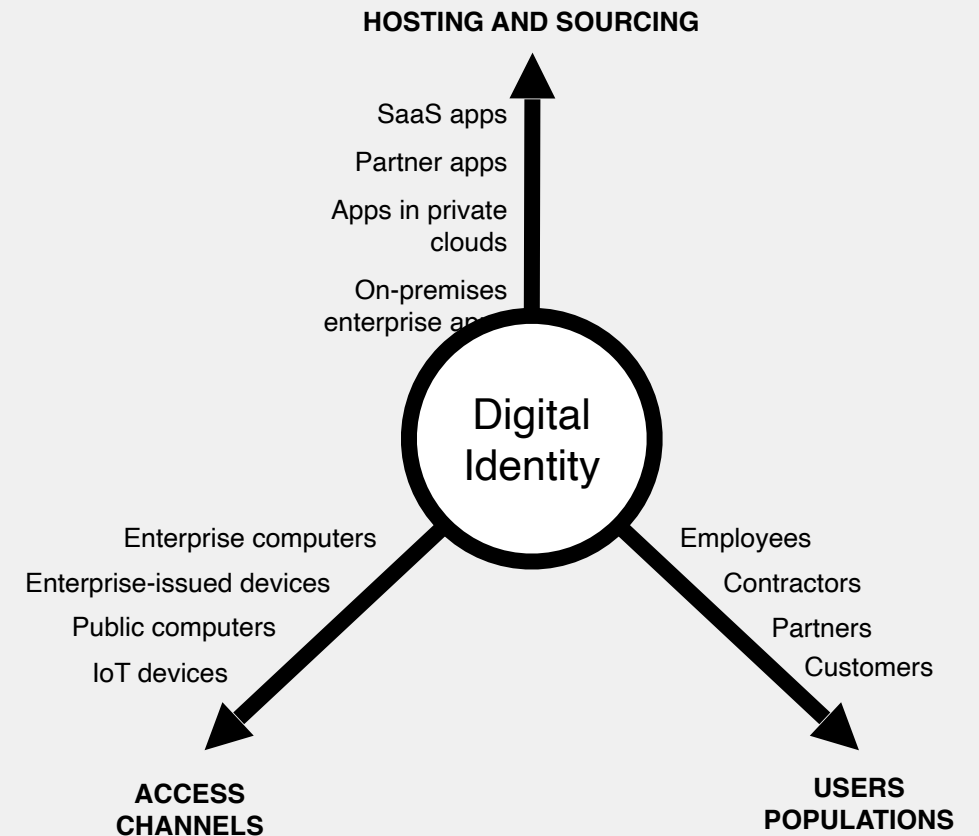
# Dimensions of modern Digital Identity and Access Management

IT landscape and ways of working have faced drastic changes in recent years. Cloud transformation, workforce mobility, and extension of partner networks and alliances are placing new demands for IAM processes and solutions.

Today developing IAM capabilities requires holistic approach, that covers all options for **hosting and sourcing** applications and services, all **access channels** enabling mobility and IoT, as well as all **user populations**.

Holistic approach is needed not only for ensuring **security** and compliance, but opportunities include also increased **operational efficiency** and better **user experience**.

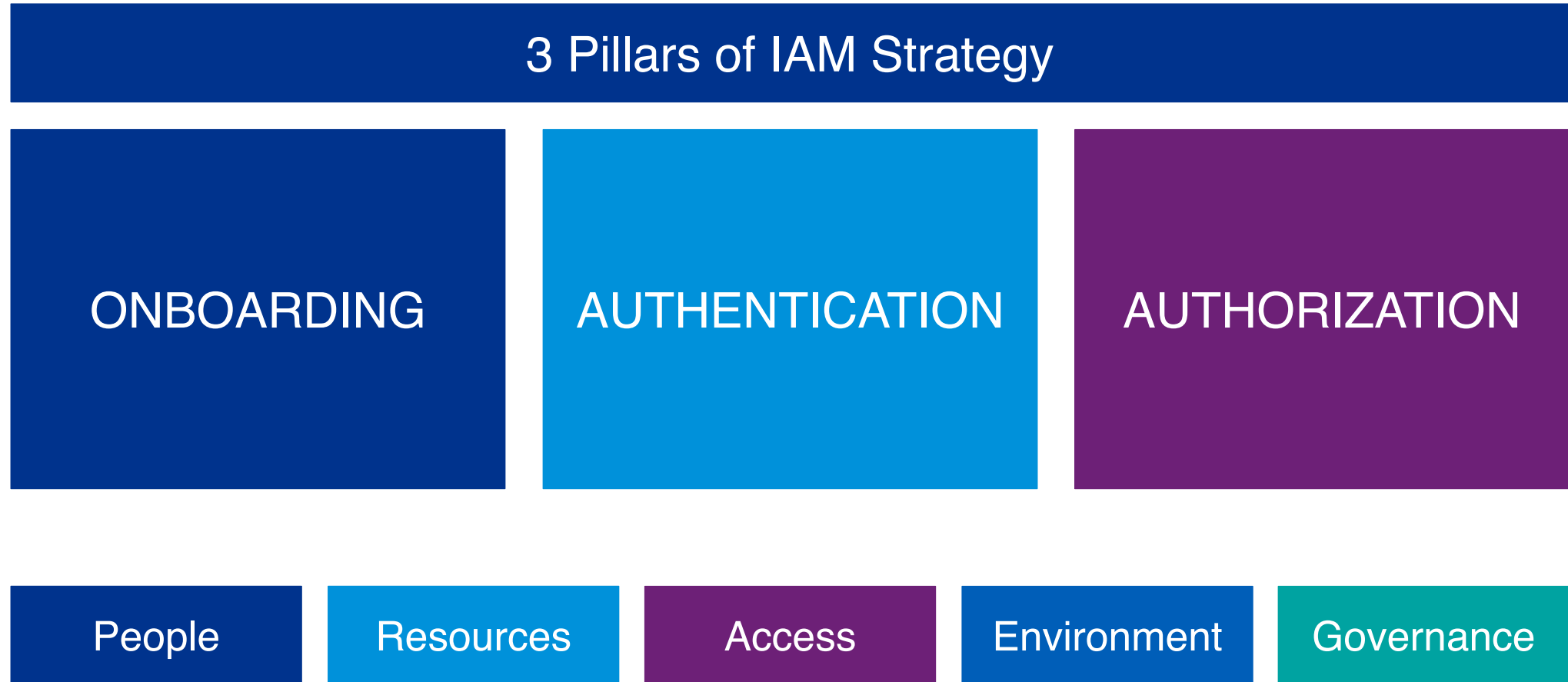
*“When defining Digital Identity Strategy, look for complete identity landscape instead of separate silos for internals, externals and customers.”*



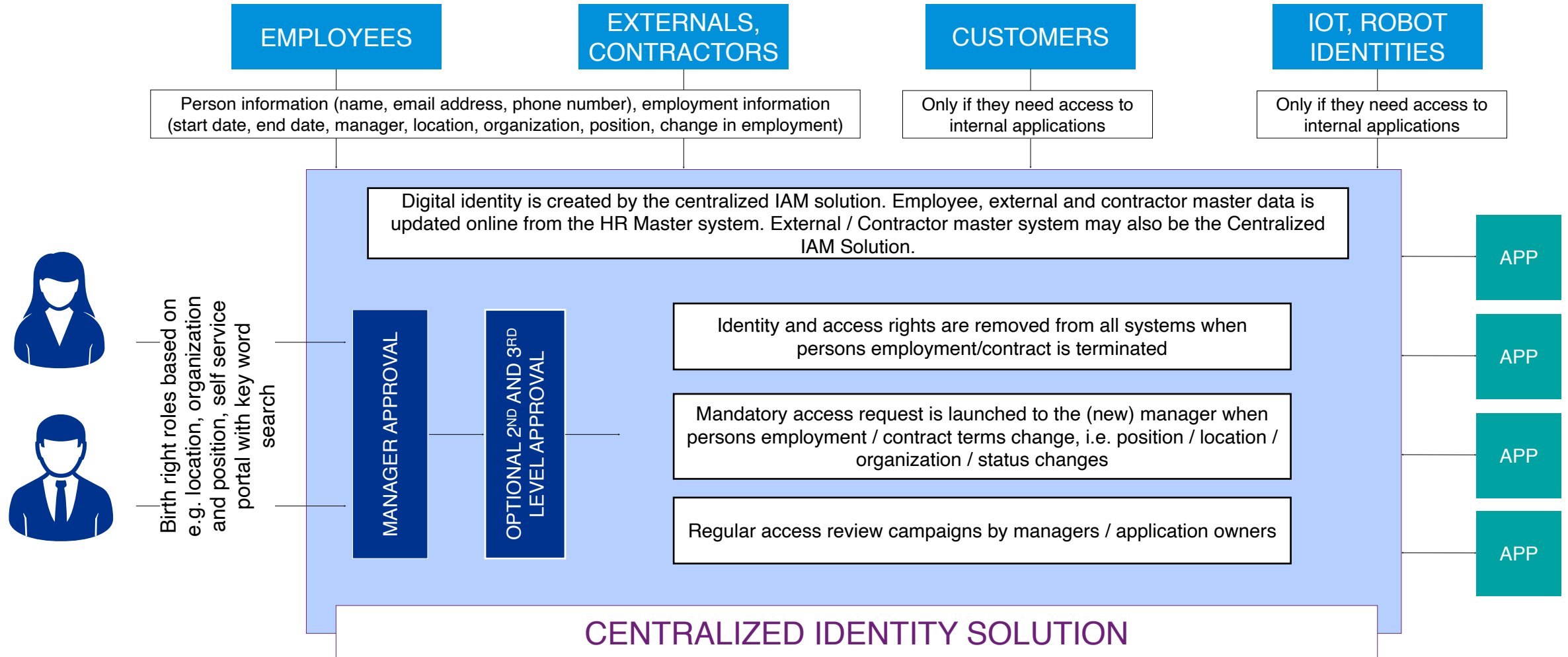


Customer  
Identity is not  
really  
Governance, except  
a bit

# Factors of Identity and Access Management



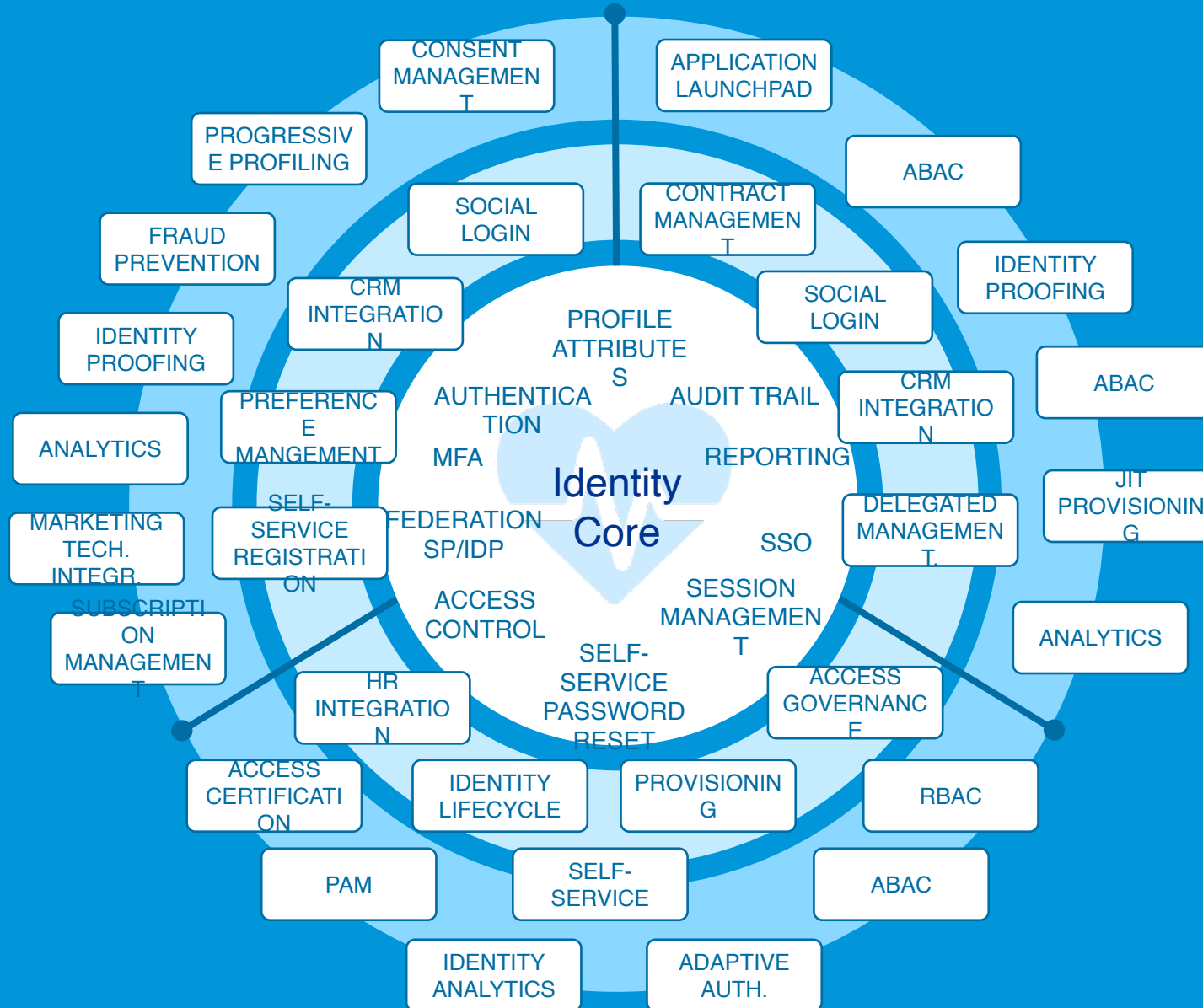
# Best Practice for Identity and Access Management





B2C Business

B2B Business



Workplace IAM



# Fundamental Difference of CIAM



# In the beginning, spring 2016

... There was IBM Reverse-Proxy-based Workforce Access Management product in place.. There was an HTML –form for log-in and a phone number for forgotten password.... There was some applications deployed for consumers to look at their usage stats and some applications for corporate clients and cities to forecast the price of electricity available...



# Why did they want the change

## BUSINESS

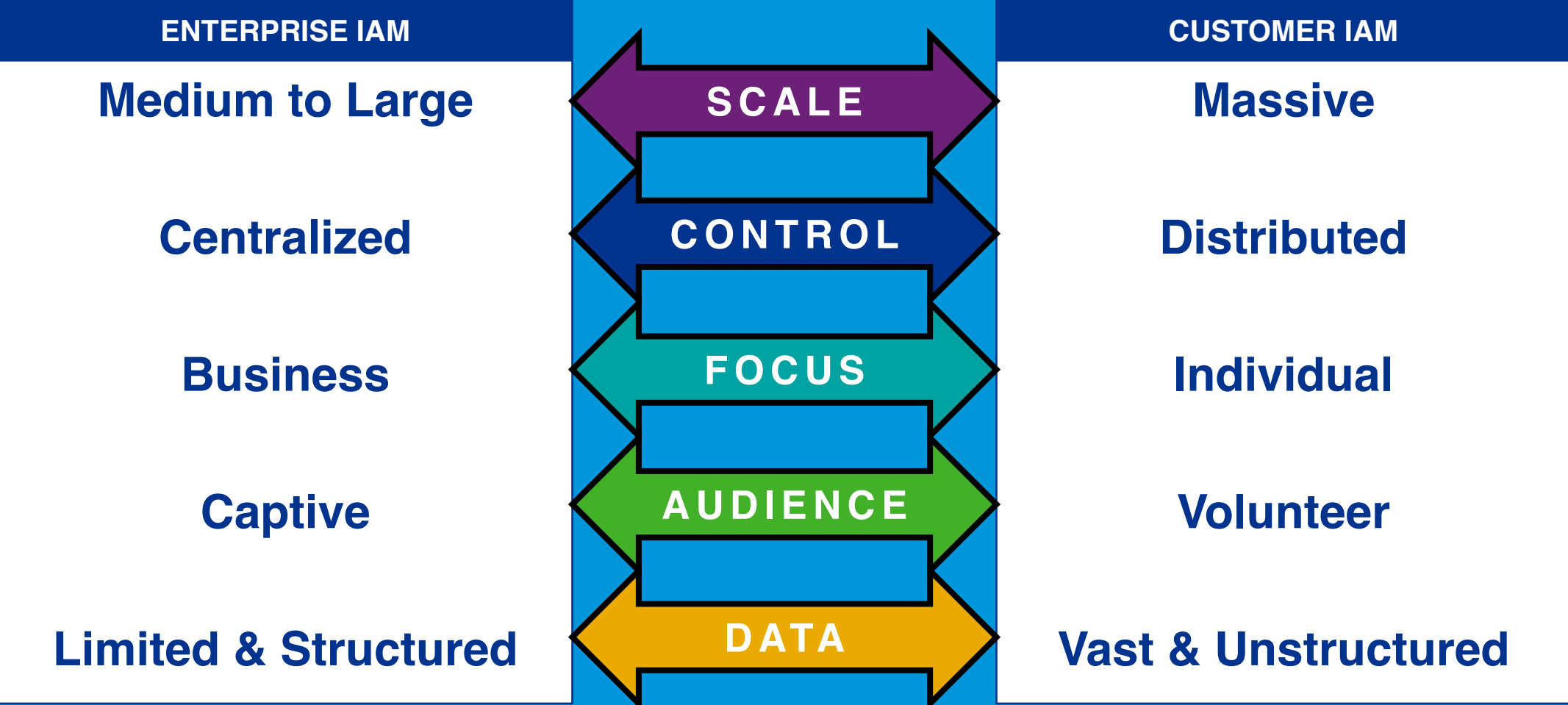
- Non-existing connection with sales process
- Loaded in-house customer support team
- No possibility to develop customer relations
- No possibility to support current or future business requirements
  - i.e Charge & Drive / Solar power back to grid
- Impossible to get insights via analytics

## TECHNOLOGY

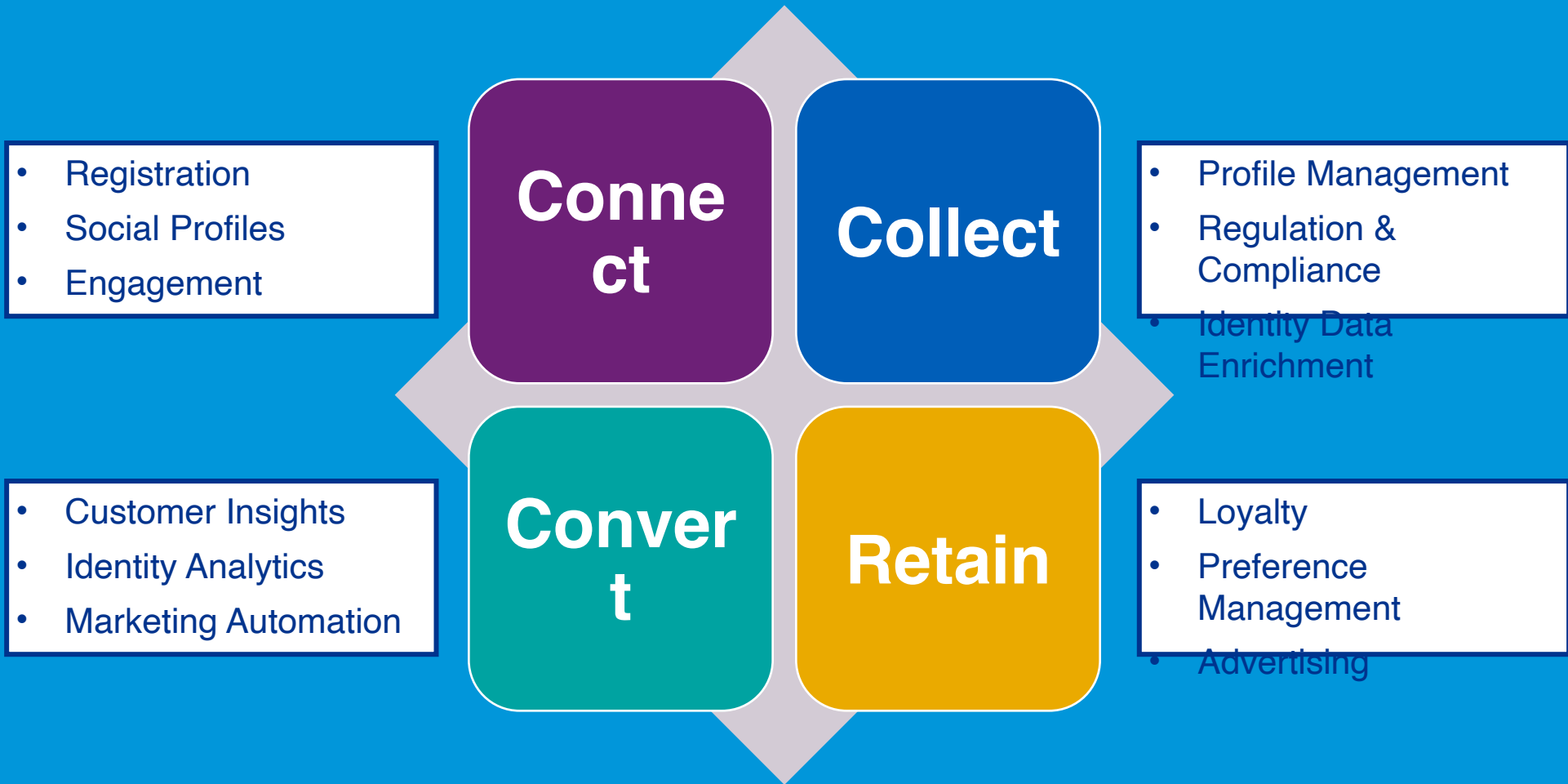
- End-of-Life approaching solution with reverse proxy
- All applications are deployed within corporate network
- Slow and complex development and deployment
- Heavy licensing model
- Unable to integrate with CRM data

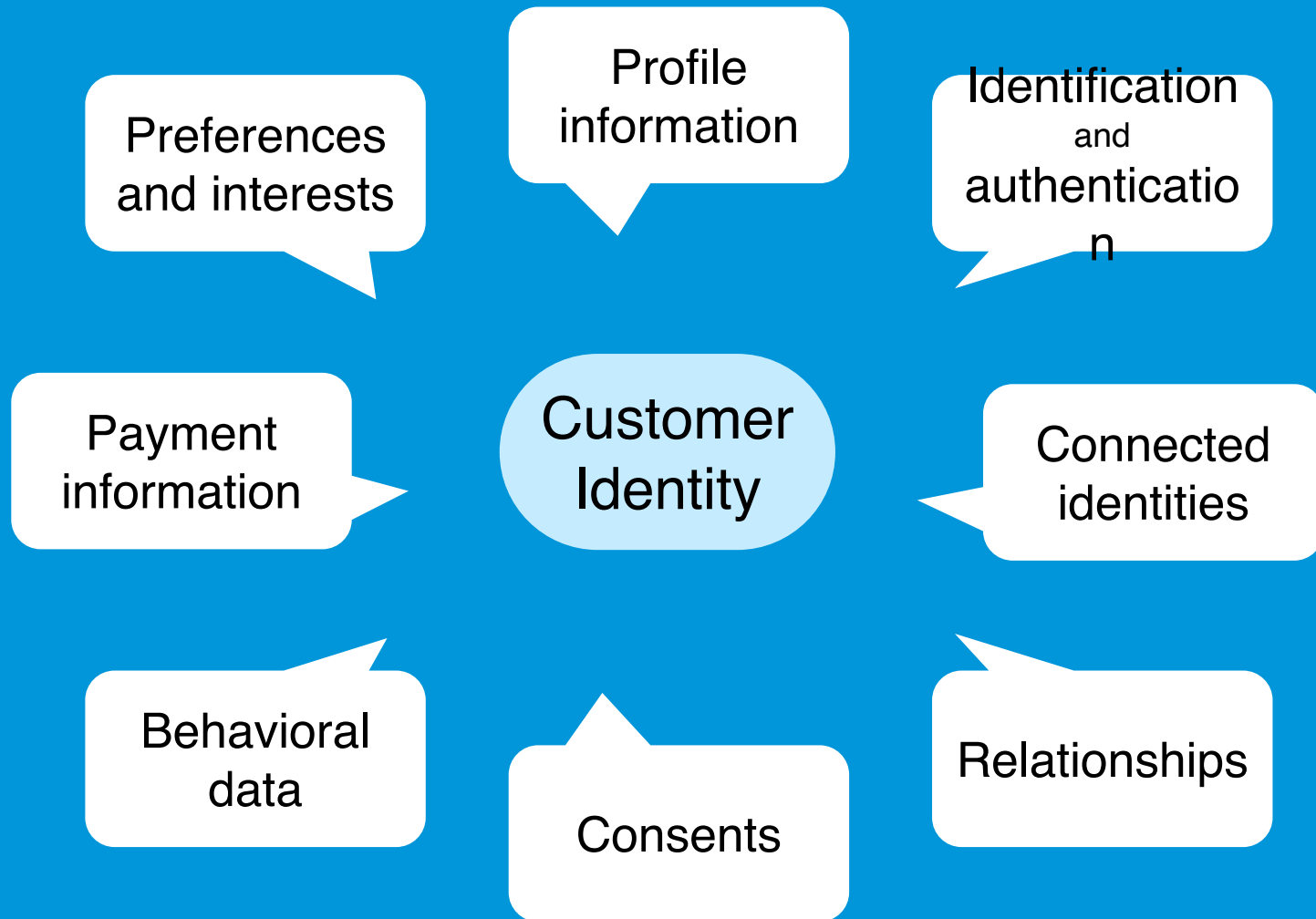
*“We need to find a way to be more meaningful than just a plug on a household wall”*

# Fundamental Difference of CIAM



# Customer IAM and Customer Engagement





## What is customer identity?

- Customer Identity, in its broadest scope, contains a full 360-degree view to your customer, to be used for better CX and in analytics.
- In many organizations the customer identity data is spread across silos that prevent utilizing it.
- Customer identity management provides means to collect, manage, and utilize this data.
- Customer Identity is about personally identifiable information (PII) and is regulated by GDPR.

# Customer Identity Management Benefits



360° view to customer



Effective marketing



Security



Increased conversion rate



Loyal customers



Data protection



# Digital business needs to be increasingly customer-centric.

Shoe-maker already knows how to create loyal customers.



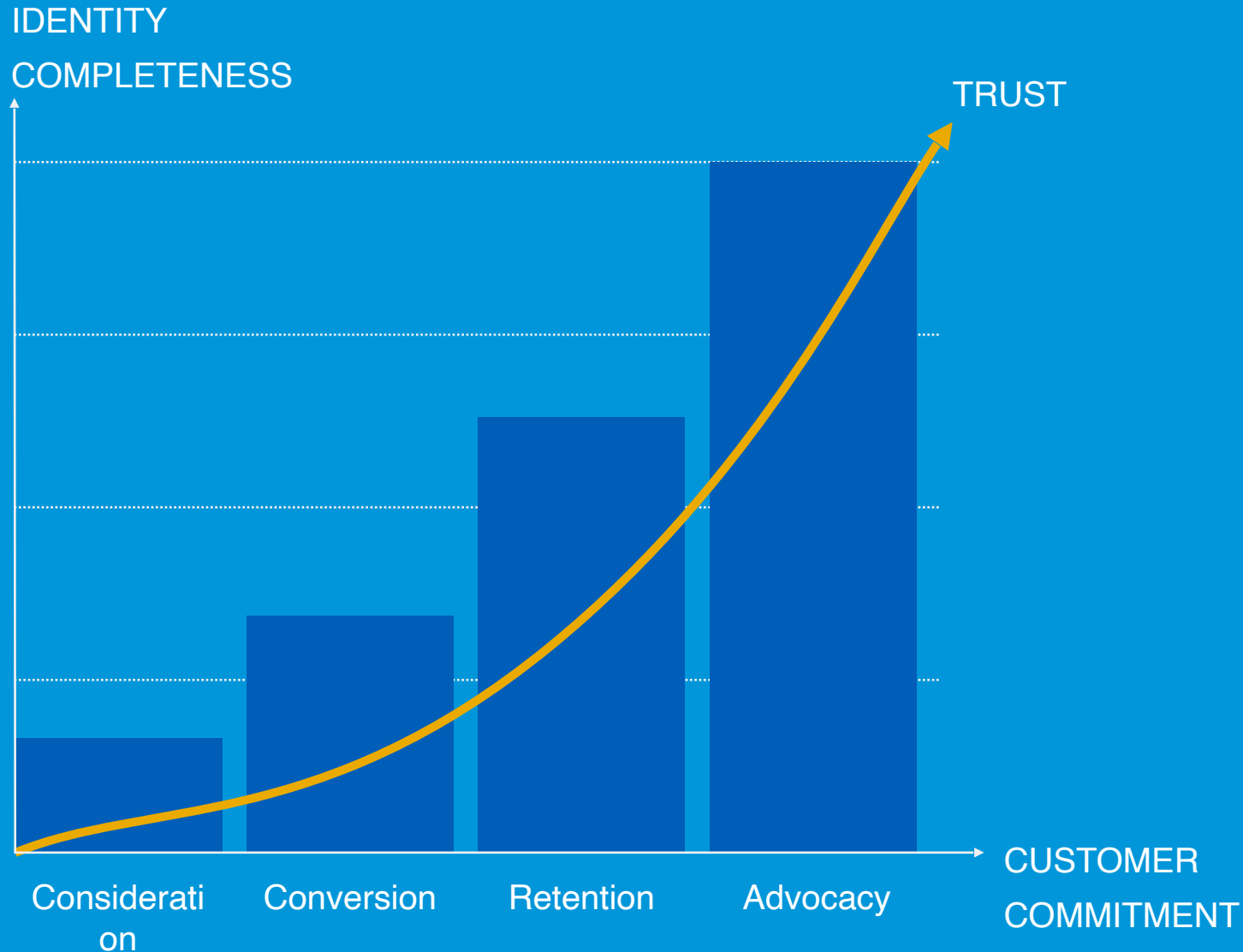
Increasing demand for personal and meaningful engagement



Increasing number of channels



Privacy regulation



## Building customer identity progressively

- Becoming familiar with customer in digital domain requires similar approach as in physical dealings.
- First contact is preferably just a login with social media account.
- As customer's commitment deepens, more questions can be asked – preferably in context with customer's activities.
- Trust is a two-way street. Being not too intrusive builds trust, which in turn helps in getting more data.

# From anonymous to known



Awareness ▶ Consideration ▶ Conversion ▶ Retention ▶ Advocacy

Anonymous interactions

Light registration

Full registration

Progressive profiling

Enriching customer profiles

Consent management

Customer & social profile data

Profile and preference management

Initial contact

Connected with customer

Better personalization

“Friendship”

# Customer journey and identity

## Customer's actions

## Value of Customer Identity Management

### Initial contact

Unknown user ends up on the e-commerce site campaign landing page using home PC. Behavioral data, such as the campaign, is collected.

Initial identity is created based on Facebook attributes and collected behavioral data is connected to it.

User is asked to connect with site using her Facebook identity. A discount code is given in exchange.

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### Returning prospect

Later user returns to the site with same device and is readily identified thanks to the social login session.

Customer is known a bit better as progressive profiling is used to enrich the identity.

As she browses interesting products, she is asked kindly to tell a couple of things regarding her interests in the context of her actions on the site.

The 1<sup>st</sup> party data is used to make engagement more personal and meaningful by making data available to e-commerce platform, recommendation engines, etc.

# Customer journey and identity

## Customer's actions

## Value of Customer Identity Management

### Device and channel switch

Later user returns the site with her smart phone. From e-commerce platform's standpoint user is totally new. She taps the social login to continue where she was left.

User can continue shopping seamlessly where she left on PC.

Thanks to easy login device change and possible channel switch to mobile site is seamless.

Same 1<sup>st</sup> party identity data and behavioral data from another device is available right after logging in.

### Payment

Returning user decides to pay digital goods. She has stored credit card details before. To complete check-out she is requested to authenticate herself.

A request to approve purchase appears in mobile app provided by the company. User simply swipes the screen and goods are delivered to customer.

Easy-to-use strong authentication method is used to mitigate risk and build trust in consumer, without harming the customer experience.



Seamless channel transitions

Social login

Single sign-on

Acquiring customer data  
Personal

Social registration

Progressive profiling

Preference management

and meaningful engagement

Marketing automation

Personalization

Recommendation engines

Privacy and compliance

Consent management

Right to be forgotten

Control and transparency

Trust and risk

Adaptive authentication

Strong authentication

## Capabilities towards Customer-Centricity

- Customer identity management enables customer-centricity in all digital channels.
- Designing customer identity management process hand-in-hand with customer journey will raise conversion rate and enhance customer loyalty.
- Customer identity management technologies are used to make vision come true, but only after vision exist.



# Overview and lessons of a real world CIAM -case



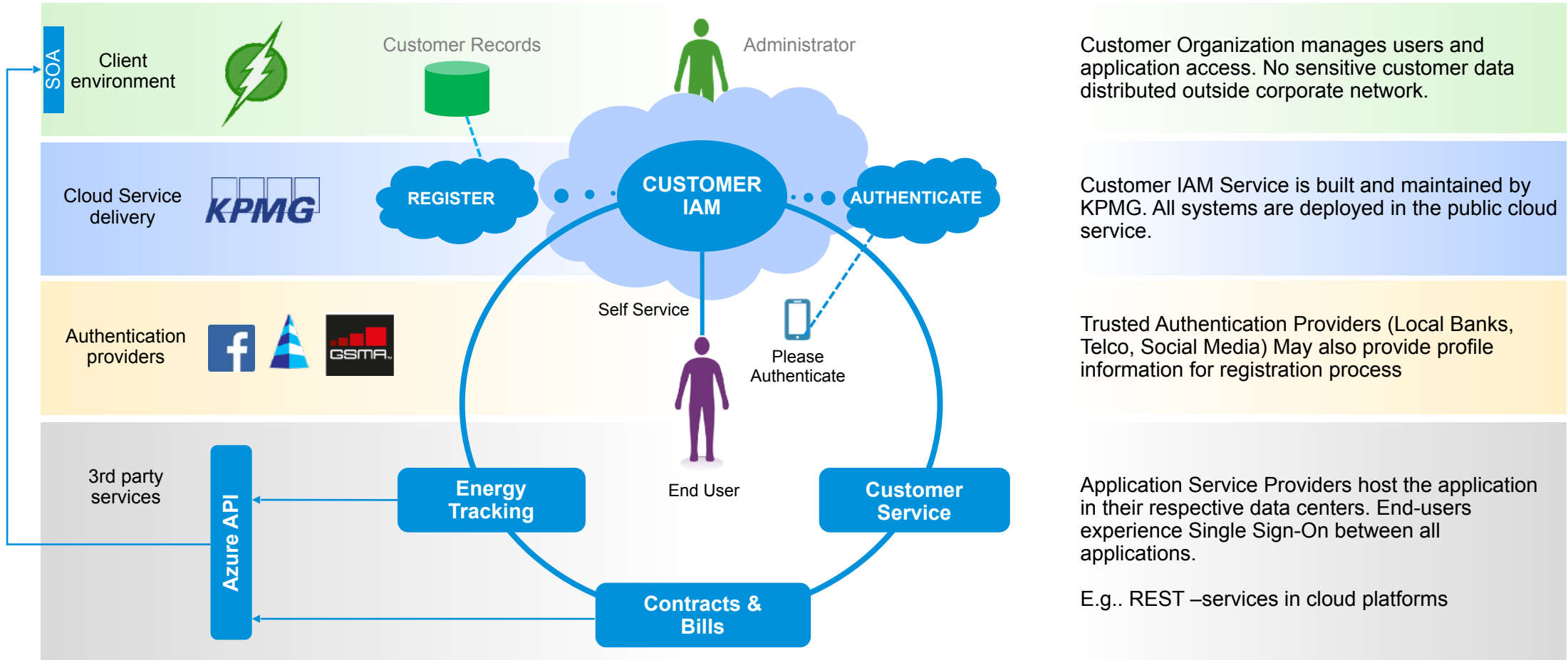
# Client Company

Customer is a leading clean-energy company that provides its customers with electricity, heating and cooling as well as smart solutions to improve resource efficiency. They want to engage their customers and society to join the change for a cleaner world. They employ some 8,000 professionals in the Nordic and Baltic countries, Russia, Poland and India. Their share is listed on Nasdaq Helsinki.

	Generation	City Solutions	Consumer Solutions
Business	Generation is responsible for Nordic power production. The division comprises nuclear, hydro, wind, and thermal power production, as well as power portfolio optimization, trading, Industrial intelligence, and nuclear services globally.	City Solutions is responsible for developing sustainable solutions for urban areas into a growing business. The division comprises heating, cooling, waste-to-energy, biomass, and other circular economy solutions as well as solar power production. The business operations are located in the Nordics, the Baltic countries, and Poland. The division also includes Fortum's 50% holding in Stockholm, which is a joint venture and is accounted for using the equity method.	Consumer Solutions comprises electricity and gas retail businesses in the Nordics and Poland, including the customer service, invoicing and debt collection business. Fortum is the largest electricity retail business in the Nordics, with approximately 2.5 million customers across different brands in Finland, Sweden, Norway and Poland.
Drivers	Nordic power price, generation volumes, Availability	Fuel mix, heat and power price, gate fees	Electricity sales, competition, customer base



# Customer IAM system layers and ecosystem



Customer Organization manages users and application access. No sensitive customer data distributed outside corporate network.

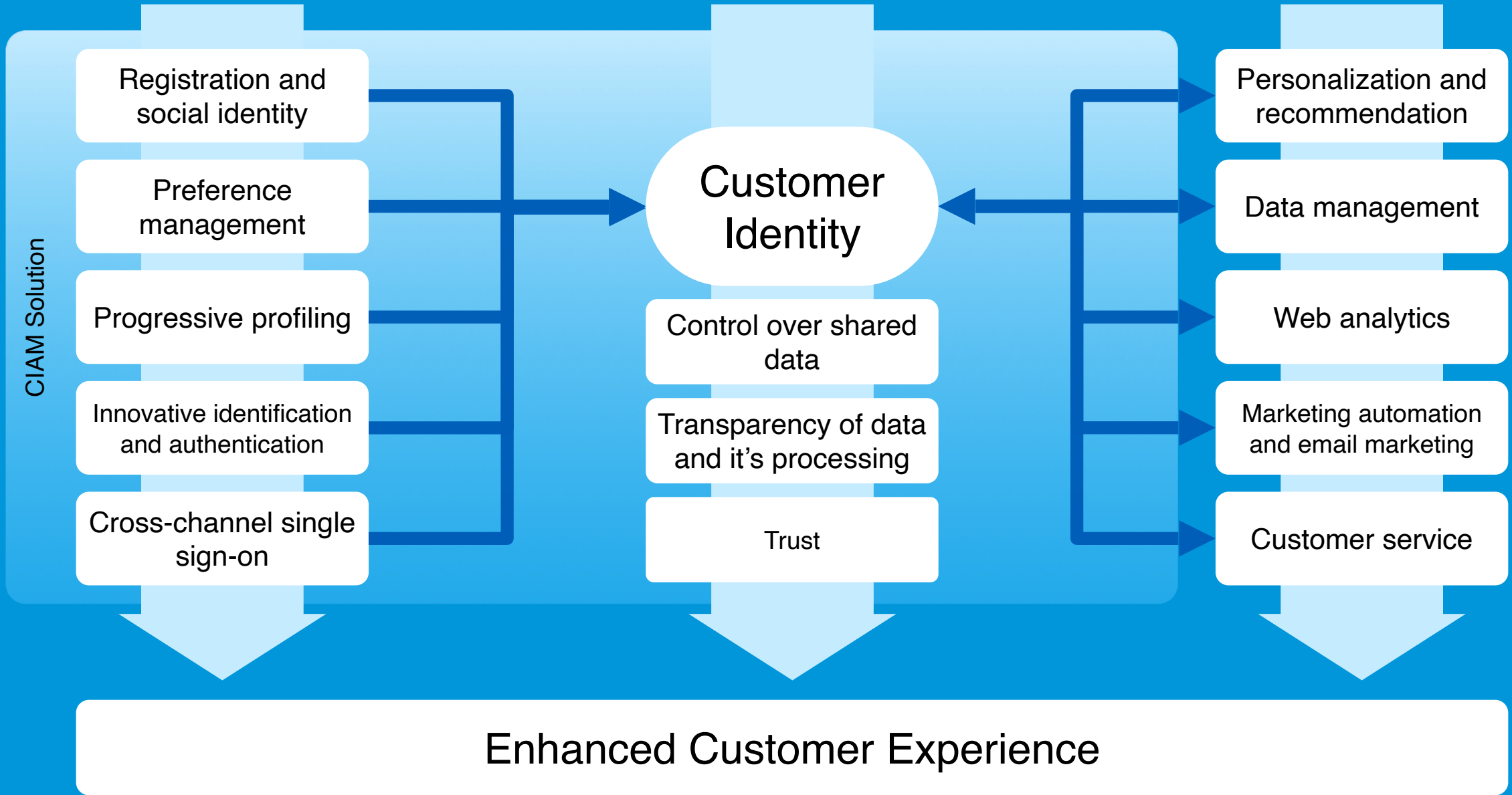
Customer IAM Service is built and maintained by KPMG. All systems are deployed in the public cloud service.

Trusted Authentication Providers (Local Banks, Telco, Social Media) May also provide profile information for registration process

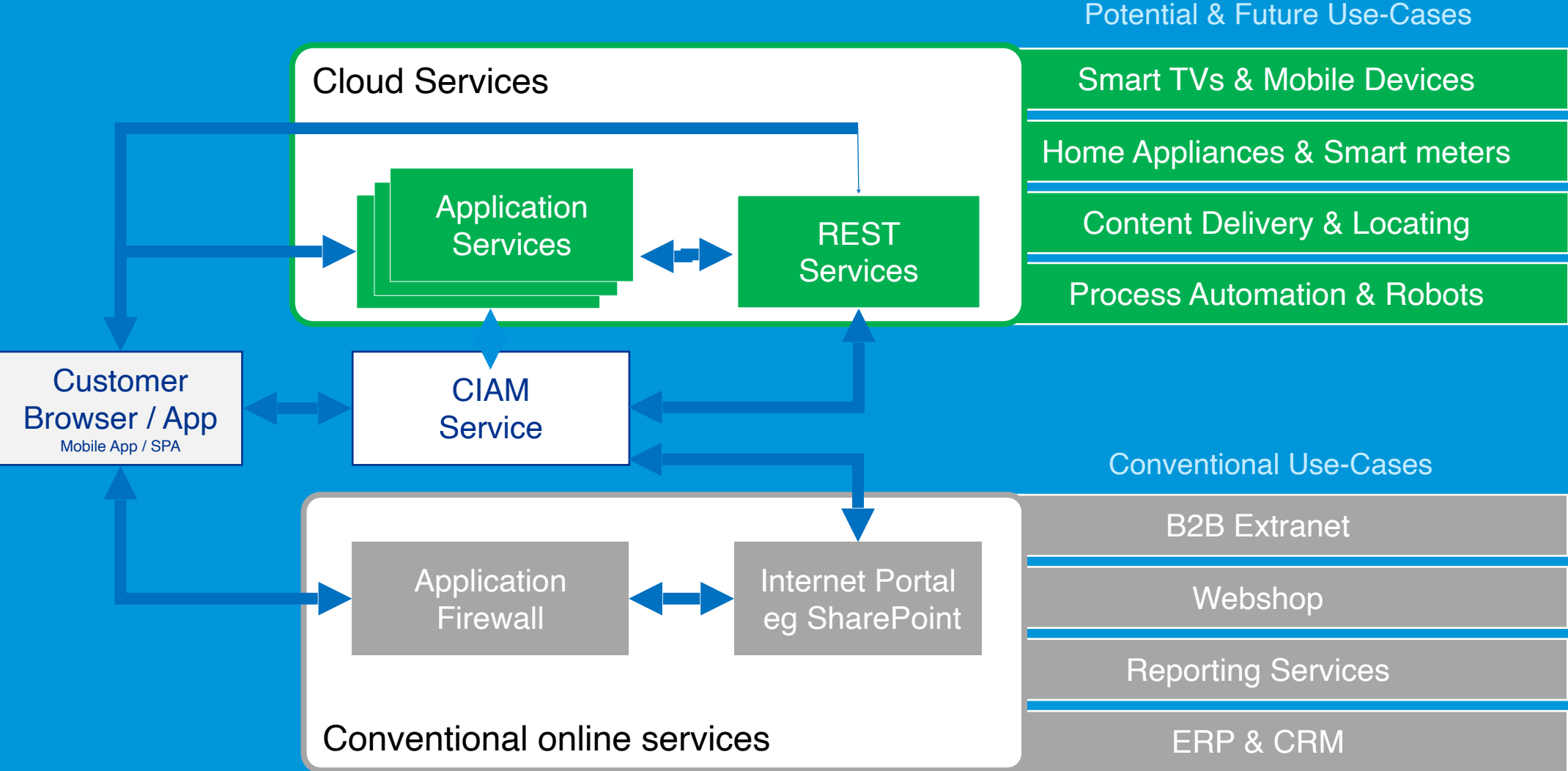
Application Service Providers host the application in their respective data centers. End-users experience Single Sign-On between all applications.

E.g.. REST –services in cloud platforms

**This Energy Company uses KPMG service to provide millions of users managed access to its web-based applications.**



# Example of distributed CIAM Architecture



# But what did we learn?

## APPLICATION INTEGRATIONS

We managed to create a capability to deploy and integrate any application wherever in the internet via OpenID Connect (and SAML2) so marketing is able to order any bell and whistle wherever they like and it will be compatible. Some restrictions still exists in the look & feel section of the login portal.

## INTEGRATIONS TO CRM

There is 1:1 visibility with corporate customer database and their agreements no matter if they are households, corporations or charge & drive clients. Customer Master Data cleansing made CRM project smoother data-wise.

## CONNECT THE SALES FORCE

Mobile app availability via OpenID Connect to provide capability to run marketing campaigns via coupons, such as “1 hour charge when you buy Big Mac meal”. Also as there is sales persons in shopping malls marketing and selling agreements, the CIAM solution was their interface to billing systems and CRM.

## MAKE SURE YOUR SERVICE WILL BE NOTIFIED!

But something to learn and build upon: Make sure to help the client RUN-team to market internally the solution; once IT system is live, it is out of the “cool radar”, meaning that you need to keep it visible to new solutions will use it.

# Other observations

## LOOK & FEEL COMES FIRST

No matter how fancy list of features your selected tool has, but look for configurability especially in the look & feel –area.

There is always marketing in charge, so the layouts will be changes frequently.

## API CONNECTIVITY

API support is the passport for both longevity of the solution as well as likeability from developer perspective.

## BUDGETING

In complex, multi-vendor environment we spent quite a bit more time than expected to train application providers to use and benefit SAML2 or OpenID-Connect –protocols.

## MASTER DATA IS A MESS

As customer and consumer data is gathered over many many years, via siloed applications, it means that there is A LOT to do in cleaning and processing the existing user data.

You just can't ask users to enter their information again, right! What about migration of passwords?

# Managing and using customer data – key points

## MANAGE

- Connecting data from different sources
- Reconciliation of data
- Data retention and purging
- Enforcing consent when using the customer data
  - Synchronizing customer data downstream to marketing, sales and other services.
- Identify data sensitivity and identifiability and process data accordingly
  - Formal, technical and perceived impact on emotional level
  - Low sensitivity and identifiability: customer segment
  - High both: social security number

## USE

- E-mail marketing
- Marketing automation
- Data management and ad serving
- Web analytics
- E-commerce and CMS
- Recommendation and personalization
  
- Synchronize data between different systems maintaining master data in customer identity management.
  - Control over data
  - Data governance

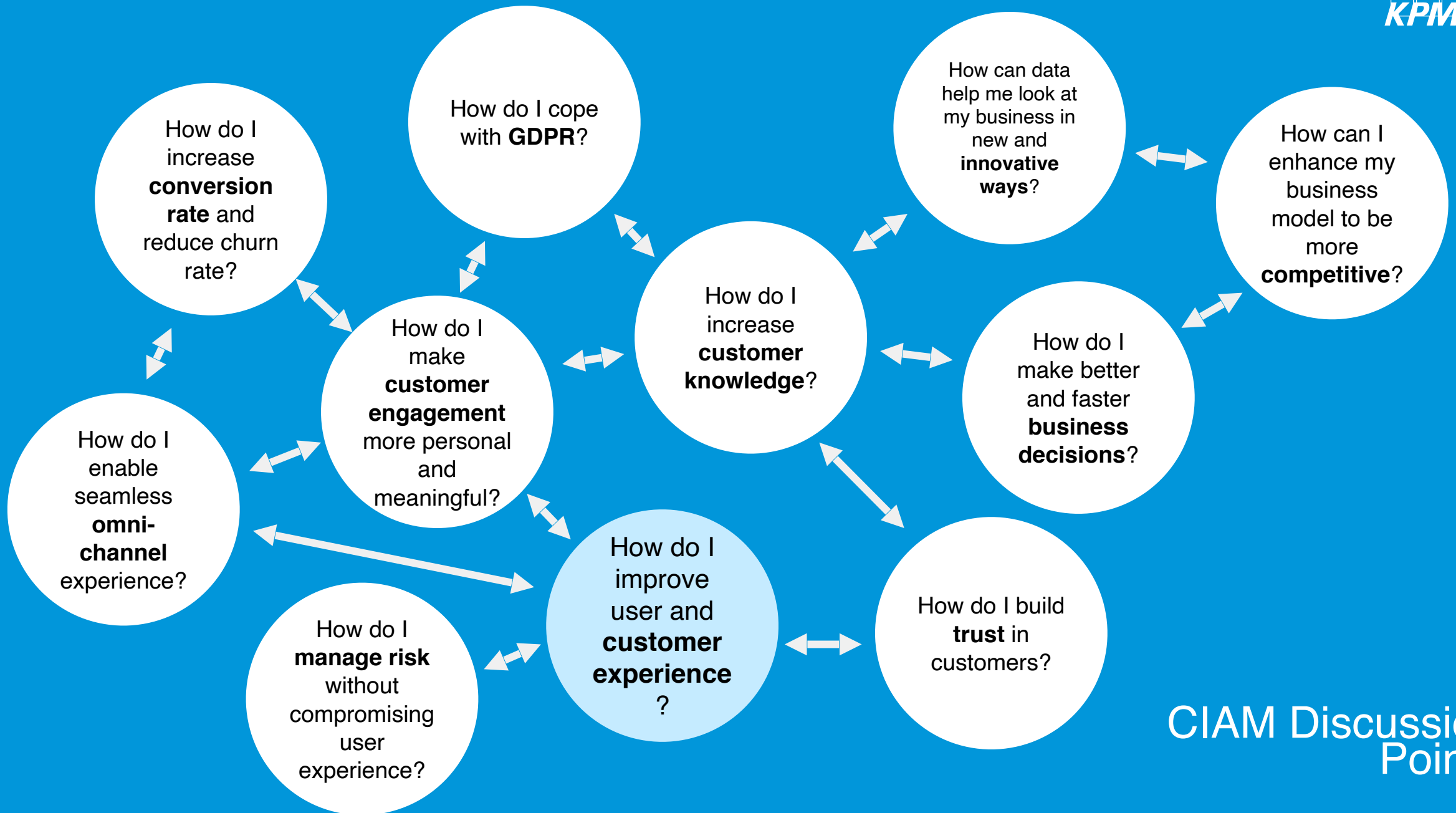


# Wrap-up



# Questions and Comments!!








# Customer journey and identity





Awareness ▶ Consideration ▶ Conversion ▶ Retention ▶ Advocacy


 **Profile** customer on web complying with received consent and connect data to initial identity.


 Collect preferences and enrich identity with **progressive profiling**. Use customer identity for **personalization**.


 **Personalize** with digital identity available in brick and mortar, e.g. with mobile app or personnel's digital devices.

 Get customer's e-mail address and consent for marketing and profiling. Create **initial identity**.

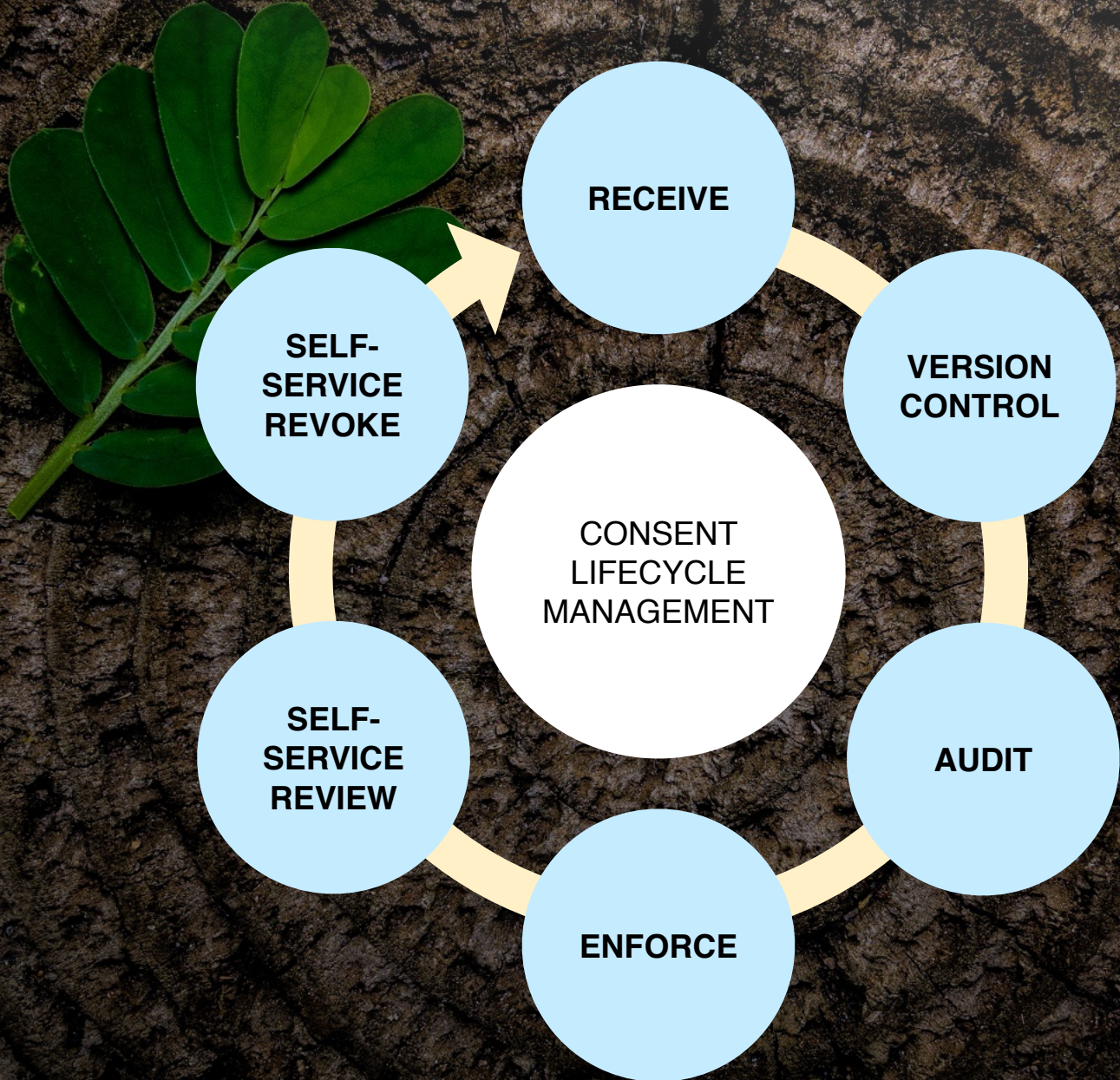
 Provide customer identity for **personalization** and **recommendation**. During check-out, **collect** more data to enrich identity.

 Use up-to-date profile data to provide highly **targeted** e-mail communications.

 **Connect** user with low-friction way and receive initial customer data. Connect with light registration profile data.

 Provide **meaningful content** with digital identity, enable **seamless channel switch** between mobile and web. **Enrich** identity.

# Consent lifecycle management



# Lawfulness of processing, GDPR

Consent

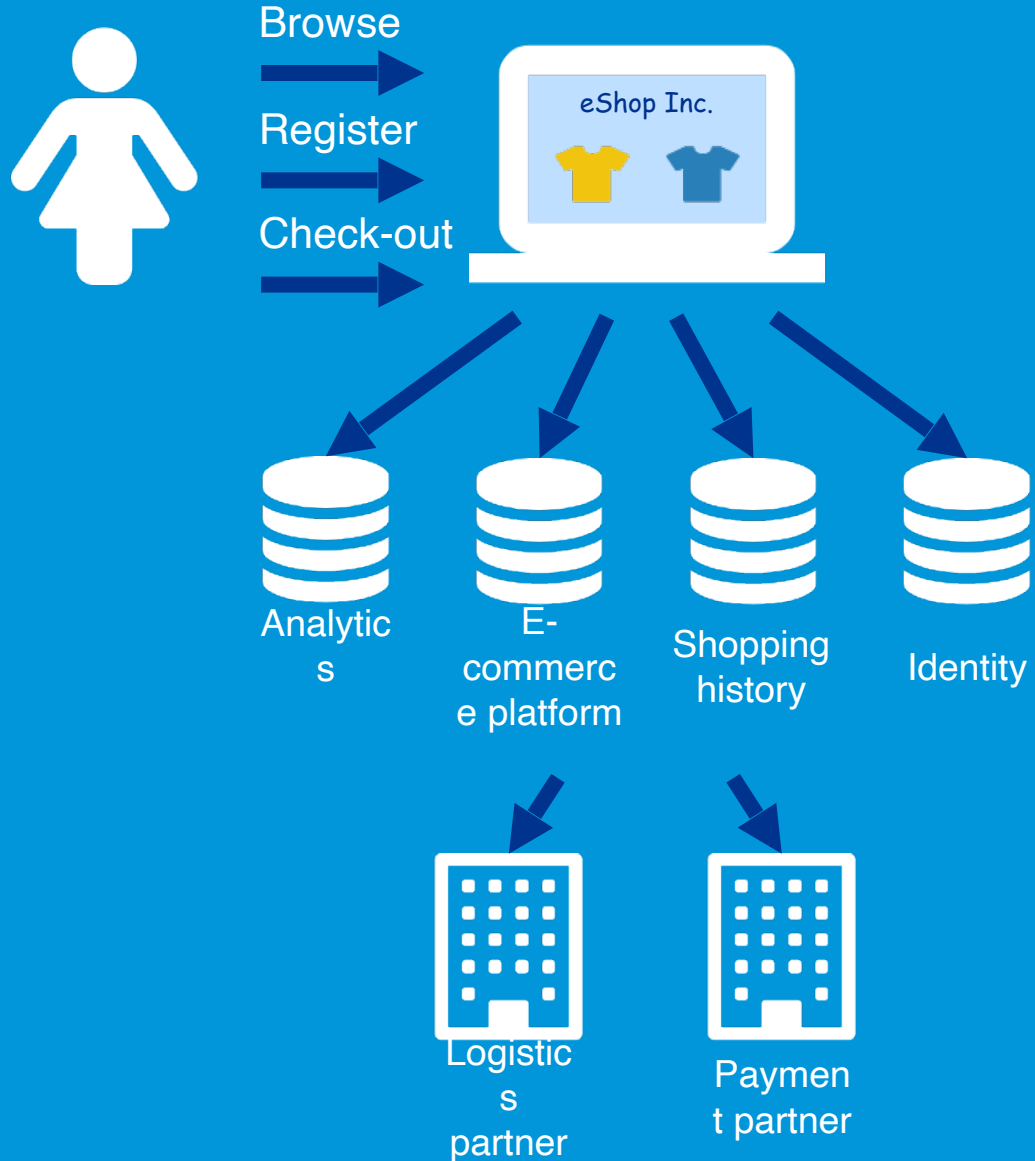
Contract

Legitimate  
interest

Legal  
obligation

Vital  
interest

Public  
task



Lacking consent for data use

Non-compliant data silos

No governance on shared data.

# GDPR Challenges

- Clear and informed consent is required for all data and its processing.
- Customer data is many times sorted in several silos which are non-compliant by nature.
- Lack of governance when sharing data with third parties.



## Access devices

Home PC

Work PC

Tablet

Smartphon  
e

Smartwatc  
h

## Digital channels

Web site

Self  
service  
portal

E-  
Commerce  
site

Native  
Apps

Chatbots

## Assets

Contract

Payment  
information

Personal  
data

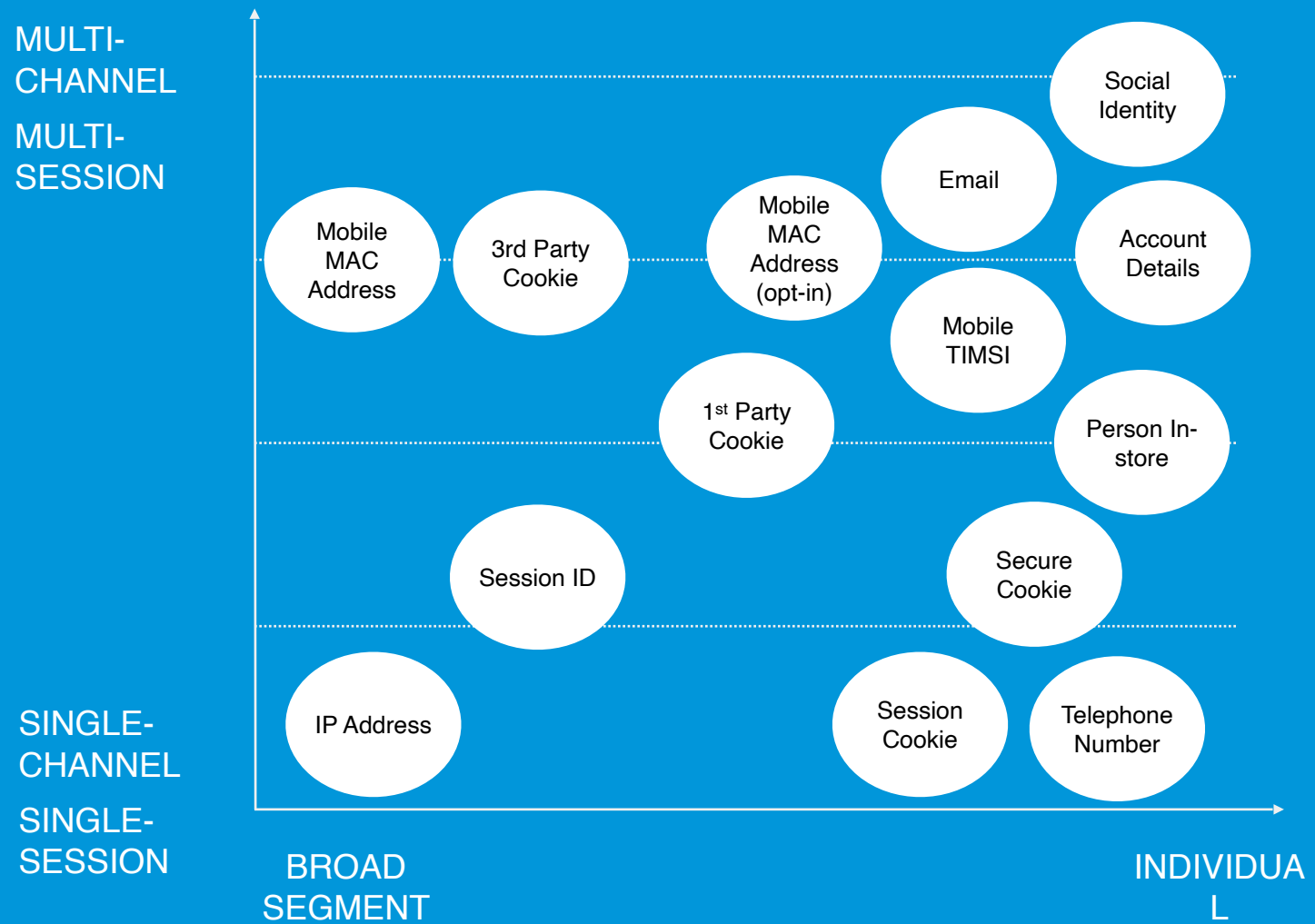
IoT  
devices

Data

## Devices, Channels and Assets

- Customer Identity connects devices, channels and assets for consistent customer experience.
- With customer identity context is not lost when switching from a device to another.
- With customer identity transition from a channel to another is seamless for customer.

# Fragmented Identity



- Customer engagement can be evaluated in two dimensions:
  - Single vs multi-session and channel
  - Segmentation vs. individual

# Registration

## Objectives:

- ✓ Connect with customer
- ✓ Collect information from customer

## Challenges:

- ✓ Bad registration procedures lower conversion rate.
- ✓ All needed information cannot be get at once.



# Form design

## Registration

First name

First name

Email

Phone

Date of birth

Interests

 Cars  Pets  Utensil

Password

Sign-up

## Sign up for free delivery!

Full name

Email

Password

Sign-up and get a code for free delivery

Up to 100% higher conversion rate.

# Social registration

## Sign up for free delivery!

Sign-up with your existing identity



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Or sign-up with your email

Email

## Social registration benefits:

- Higher conversion rate
- Email is already verified
- Access to rich profile data
- Easy login for returning customers
- Up-to-date information

# Progressive profiling

## Please tell us your vacation preferences!

The information will be used to provide you a personalized experience and interesting offers.

- 
- |   |  |
|---|--|
| <input type="checkbox"/> Beach holiday    | <input type="checkbox"/> Cruises       |
| <input type="checkbox"/> European cities  | <input type="checkbox"/> Ski vacations |
| <input type="checkbox"/> Family vacations | <input type="checkbox"/> Asian cities  |

Ready!

- Trigger progressive profiling in appropriate moments, e.g. when user returns 3<sup>rd</sup> time or performs certain activities.
- Preferences or attributes.
- Tell how data will be used and ask for consent.



Give Power Back  
to Customers

Consent

Control of own  
data

Transparency



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