



Mindtree

A Larsen & Toubro Group Company

CDP: Delivering extraordinary **data-driven** customer experiences



The increasing number of interaction channels, competition and short span of customer attention are forcing businesses to be more accurate and effective in their marketing initiatives. Data is the fuel for this marketing ecosystem that enables marketers to deliver the right content to the right audience at the right time.

Assume you are a leading sports shoe brand and your customer is trying to buy a pair of shoes online. You know from the customer's profile her age, location and past purchases. Using this data, it is tempting to show the latest lace-less island green trainers with flex soles as the right choice. The buyer may be shopping for herself (persona: athlete). It is equally likely that the customer is buying for the kids (persona: mother/ decision-maker) or placing an order on behalf of her husband or current social interest (persona: delivery person). The buyer could be playing any of three roles and marketers have to read between the lines to see which persona must be addressed.

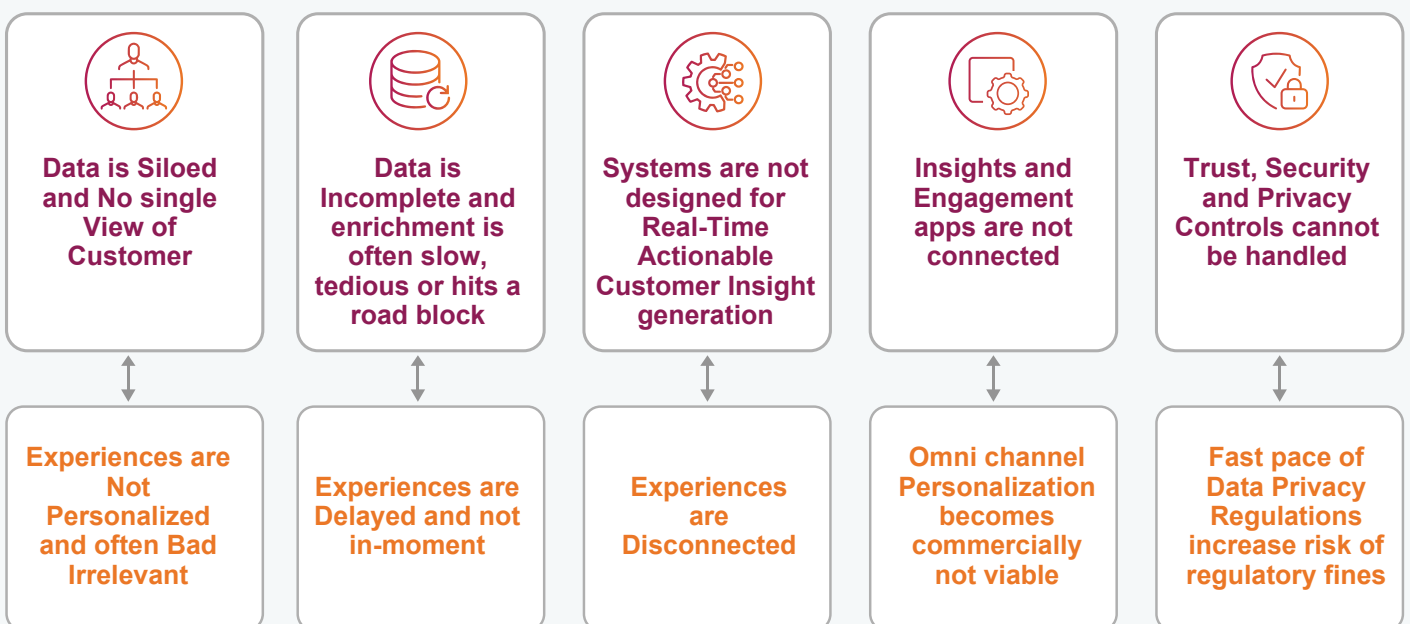
Using data in marketing without context or time may not give the optimal results from personalization. With poor personalization, the customer may move away. Winning and retaining the customer with personalization requires real-time data visualization and deployment. It's worth the effort of doing this. Studies show that organizations with real-time data visualization increase business by 26%, while effective personalization increases ROI by up to 6X.

Historically, the problem has been that over the years, marketing channels have emerged for different objectives, and hence, they are by design working in silos. Each channel has fragments of the customer profile, but none with all the details.

For instance, websites, mobile apps and Customer Relation Management (CRM) programs have different objectives, and therefore differing KPIs. Today, considering there is an explosion in the number of channels, customer experience has fallen short of meeting customer expectation. Today's customers want a seamless, consistent and unified cross-channel experience.

Enterprises understand the need of data-driven marketing, and that this is the key focus area for them. However, they face the following roadblocks to enable Omni channel personalization at scale:

- Data Siloed in channels
- Slow and tedious to stitch customer data across channels
- Even if data is available in central store, it is difficult make sense of it
- Insights can't be made available to all engagement channels in time
- Customer trust and number of compliance



Why you need a CDP (and why your data lake won't cut it on its own)

To deliver the exceptional experience that customers expect, organizations must devise new ways of working, aimed at dissolving channel silos and ensure that the CIO, CMO and business can work collaboratively. Delivering exceptional customer experience should be the top KPI for all teams. This means replacing channel-specific programs with a single channel-agnostic strategy is first step toward the data driven marketing.

Despite the obvious advantages of a Customer Data Platform (CDP), organizations hesitate to make investments. This, however, is a myopic, short-term view. Organizations need to remember that a CDP is like the Swiss Army knife of marketing. It reduces marketing dollar waste, improves returns, leads to the desired outcomes and builds sales volumes. In the medium term, the ROI of a CDP is significant and can easily outweigh the decisions not to invest in CDP.

The bigger problem lies in justifying a CDP when the organization has already invested in data lake. CIOs and CMOs of these organizations (rightly!) want to know why they should opt for a CDP. The answer is simple. It is a slow process to generate insights and activate them to channels—they are missing out on opportunities due to slow and complex ingestion and activation process. CDP can leverage the precious data in your data lake to create contextual 360 degree views of customers, and apply AI and ML over the data to create and activate superior insights to channels in real time.

Another common misconception is that CDP only serves the purpose of retail and e-commerce businesses. Nothing could be further from the truth. Every industry, from banking to consumer goods, wants to deliver better customer experience. By answering following question, you can judge the need of CDP (see Table 2: Is CDP relevant to your business?)

Is CDP relevant to your business?

1. Do you have capability to personalize experience across all channels without channel-specific initiatives?
2. Do you have governance tools to comply with existing and upcoming privacy regulations and customer preferences across channels?
3. Do you have the capability for identity stitching (Anonymous to Known – A2K)?
4. Do you have the capability to activate intelligence in real-time across channels?
5. Do you have the capability to understand the omnichannel journey of your customer and the parameters that affect it?
6. Do you have the capability to orchestrate the customer journey across channels?
7. Can you predict the churn and take corrective measures?

Here are the considerable differentiators that CDP has, compared to DMP, CRM etc.

Customer 360 and outbound capability

Some of the world's leading brands are achieving this by implementing a central CDP. They are augmenting their CRM and Data Management Platforms (DMPs) with CDPs that maintain Personally Identifiable Information (PII) of customers along with data related to their behavior, preferences, transactions and loyalty. What the organizations get is a 360 degree view of their customers, which becomes the basis for precise and effective marketing outcomes. The most important differentiation is to enable business for outbound marketing at individual and segment levels.

AI/ML at central level to give you economy of innovation

Organizations that have begun to use CDP are also able to gain a competitive foothold because they can apply innovation like AI and ML on top of the CDP data to generate insights, and define new approaches of marketing

Organizations that have begun to use CDP are also able to gain a competitive foothold because they can apply innovation like AI and ML on top of the CDP data to generate insights, and define new approaches of marketing with faster time-to-market. On the cost side, this represents a major breakthrough. Organizations using a central CDP do not have to make AI and ML investments for each channel, thus resulting in lowered costs and increased efficiencies

Standardized schema across enterprise and industry for better standards and compliance

For CIOs, the goals are clear. They should be able to integrate all channels into a single CDP that provides real time customer data, real-time dashboards, reports, tools to identify anomalies and to drill down to support business operations. These sources range from ERP, CRM, social media, online behavior, click streams, right swipes, app stores, wearables, edge devices, and surveys to third party government/ syndicated data.

With so many variety of systems generating data about the customer in varied formats, ranging from .xls to JSON, pixel to geospatial, it can be compressed, uncompressed and encrypted. Data can come at different frequencies—from real-time to one-time, batch or on-demand. It can be on-line or off-line. The variants and velocity of data present a unique challenge to manage the data. Hence, defining an enterprise-wide schema to collect all kind of customer data becomes important. As part of various marketing initiatives, you need to work with second and third parties to acquire new customers. So, while defining schema, it is important to follow standards to accommodate various use cases. The final record following the schema has tremendous value because it creates a single, reliable and complete view of the customer, with ready-to-use omnichannel use cases.

Introduction to AEP

As we have established the importance of CDP, marketers, however, don't have to build such complex systems from scratch. There are many Commercial-off-the-shelf (COTS) solution available. While choosing a CDP, the following are important parameters you should keep in mind.

Business Features

Query Service| Data workbench
 AI/ML | Auto segmentation
 Destinations Support (Owned /third party | Journey orchestration
 Real time ingestion/activation

Technology

API first | Edge activation
 Third party integration capability
 Identity service (Deterministic/ probabilistic) Ingestions (Streams/tags, api, batch, etl,SDK)
 OOTB Vs Custom Integration with existing marketing ecosystem

Compliance and Security

Data Governance | ACL
 Auditing | PII + Anonymous



Standards and extensibility

Channel specific data policies
 Data labeling | Schema Standards
 Schema Extensions

Economic viability

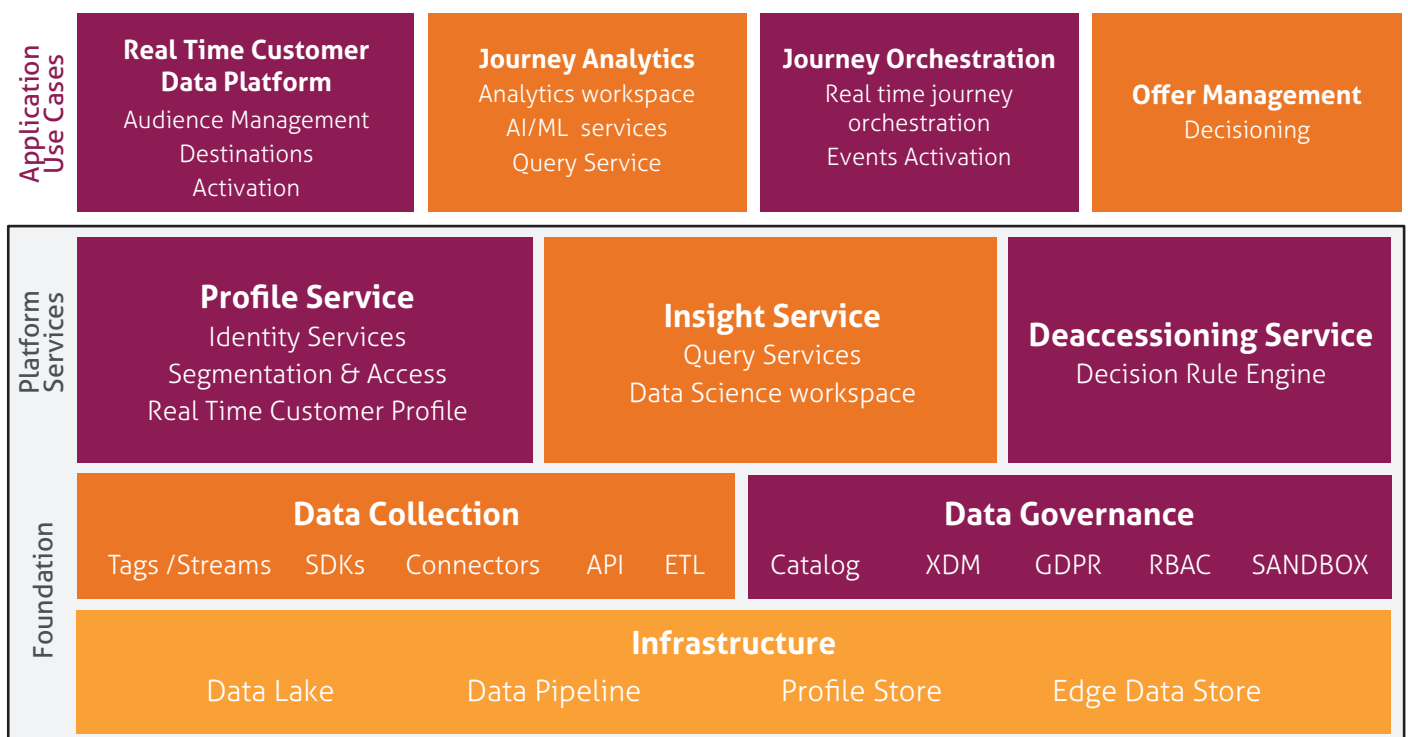
Time to market | Cost of operations
 Costing parameters | Change management | Resource availability
 Roadmap of product
 Value of current investments

With respect to above parameters, Adobe Experience Platform (AEP) is one of the leading business-friendly solutions that tops the comparison among leading players. Mindtree can provide the comparative analysis of these leading products in the context of your current state and use cases.

AEP orchestrates vast amounts of diverse data to create a single view of the customer. The workbench insights are handed over by the AEP to related systems of engagement (advertising cloud, marketing cloud, commerce cloud, analytics cloud) to act upon. Studies have shown that 60 to 70% of consumers expect highly contextual and personalized experiences in real-time. Many avoid brands that deliver bad bad experiences.

The below block diagram depicts the key components of AEP. There are three layers:

- **Foundation:** This layer comprises the infrastructure, which includes the data lake, edge network, pipeline service etc. Second component of foundation layer is data governance tools and processes. Data collection is the third important component of this layer, which supports a variety of data ingestion mechanisms.
- **Platform Services:** Profile service components help you stitch your identity, including A2K, real time customer profile and segmentation. The insights service lets you query the data, discover insights and use a data science workbench for advance use case .
- **Application Services:** This layer helps you build business use cases.
 - ♦ **Real Time Customer Data Platform (RTCDP)** lest you create and activate segments to destinations. This leverages real time customer profile to unlock many use cases, which can help you take advantage over competition.
 - **Customer Journey Analytics (CJA).** This lets you understand the omnichannel customer journey through query services and analytics workspace. IT also allow you to build custom AI/ML models in your business context.
 - **Customer Journey Orchestration (CJO):** This is useful for leveraging events in customer journey and orchestrate the journey at one on one level.
 - **Offer Management:** This is another use case to help businesses optimize their offer/coupon distribution to save cost and optimize conversion.



How are AEP, CRM and DMP different from each other?

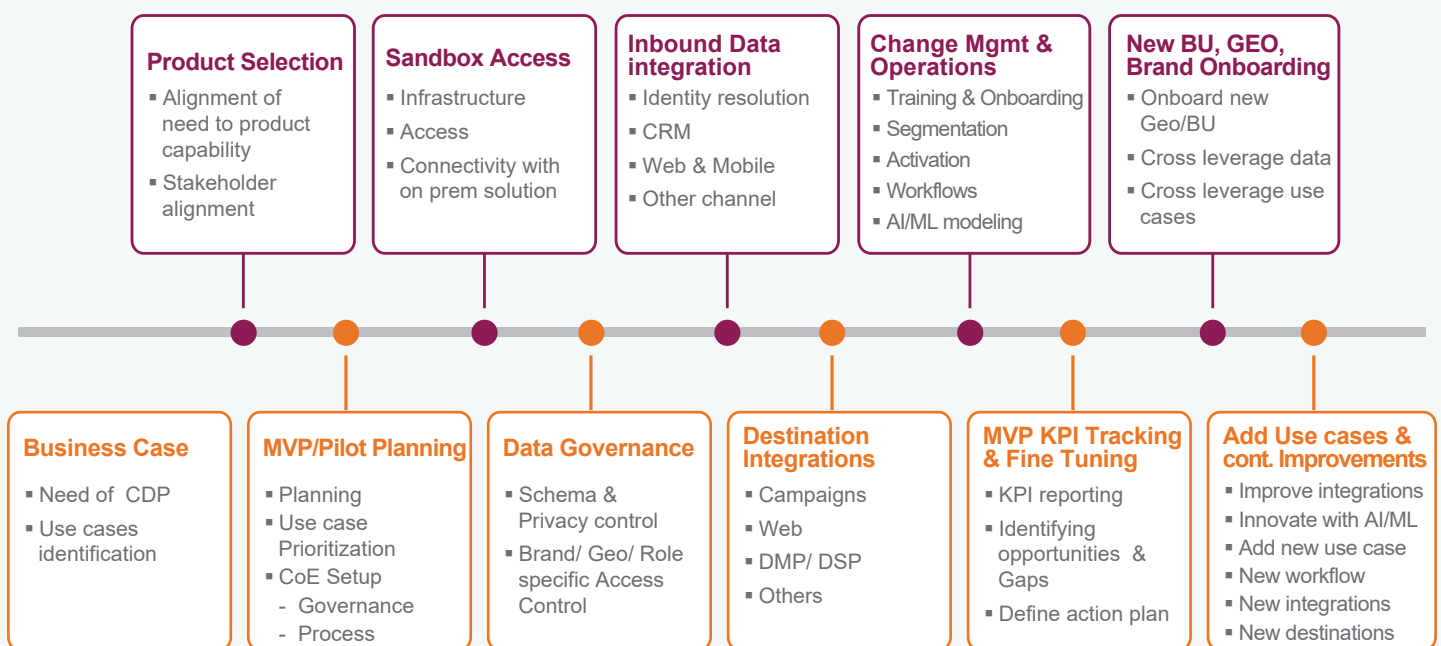
The below comparison of capabilities indicates that even if CRM and DMP are available to sharpen the marketing initiative, AEP has its own unique value.

| | Anonymous Data Marketplace | Activation Through Ad server, DSP | AI/ML at scale for Omni channel | Omni channel Journey Insights | Real Time Activation | PII Data/Outbound Marketing | Industry standard data modelling & Governance (XDP) | Identity Stitching for AZK | Identity Stitching for AZK | Open & Extensible |
|-----|----------------------------|-----------------------------------|---------------------------------|-------------------------------|----------------------|-----------------------------|---|----------------------------|----------------------------|-------------------|
| DMP | ✓✓ | ✓✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✓ | ✓ | ✓ |
| CRM | ✗ | ✗ | ✓ | ✗ | ✗ | ✗ | ✓✓ | ✗ | ✗ | ✓ |
| AEP | ✗ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓✓ |

Roadmap to AEP Implementation

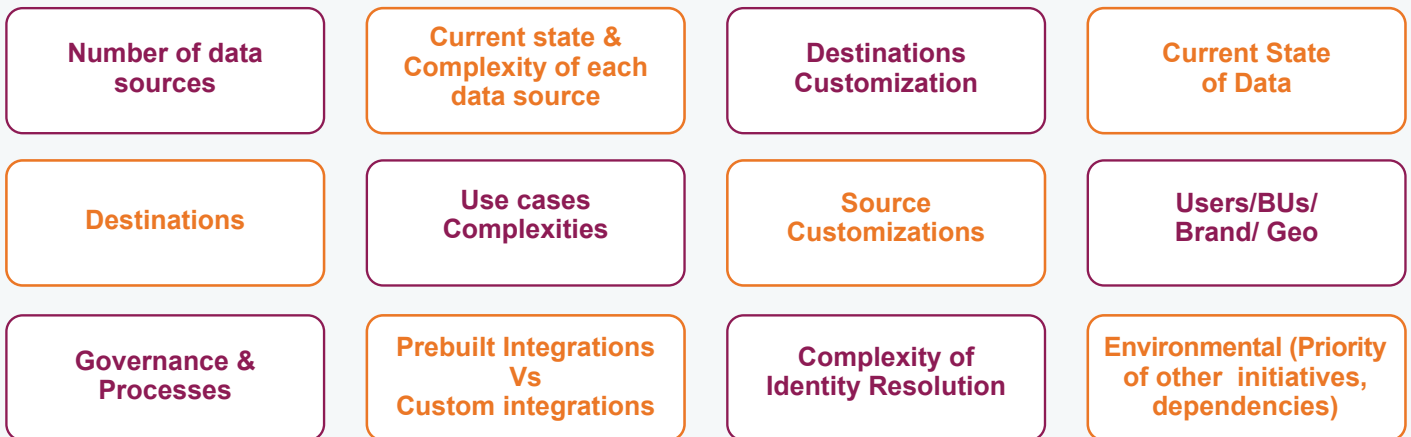
Every organization can use a CDP and can combine it with noise filtering techniques, AI, ML and visualization to gain deep customer insights.

Once an organization realizes that a CDP can provide superior data-driven experiences across the entire customer lifecycle, the next question is: How do I build such a 360 degree system that understands customers and their needs in context and helps business deliver relevant experience?



Parameters Affecting Implementation Timeline

There could be many parameters impacting the implementation timeline and plan. However, the below are a few key parameters that we have witnessed according to our experience.



Summary:

On the journey to data-driven marketing, there are many challenges with respect to new sets of skills, governance and program management, change management, Minimum Viable Product (MVP) definition, KPI measurement and the operationalization of new ways of thinking and executing the campaign. For marketers, this means they have a reliable and experienced team which can implement data-driven marketing ecosystems which are scalable, have the right checks and balances, and which can be used confidently to generate powerful and result-oriented customer experiences.

To get it right, organizations need a technology partner like Mindtree to glue the diverse parts of the system. Mindtree has considerable experience in building custom CDP, using AI and ML to deliver augmented analytics and immersive experiences across industries. We bring you a treasure trove of learnings and best practices from past implementations and operational experience of CDPs. We can help you right from business case identification, CoE setup, MVP definition, change management, rollout for brands, business Units and geos and most importantly, BAU operations. With our vast experience in implementing data-driven marketing systems, you can be assured to get it right the first time

About the authors



Ashish Khandelwal: With 20 years of experience in the IT landscape and over 15 years' experience in Digital Marketing, Ashish is currently playing the role of Chief Architect in the Digital practice and leading the Adobe CoE at

Mindtree. In the past, Ashish has experience with Media, Travel and CPG domains, architecting scalable and high transaction digital solutions.



Raman Suprajarama: With 18+ years of Industry experience he has worked with Global 2000 clients to help them transform their marketing and sales function by leveraging Data, AI & ML, Analytics, and Automation. He has deep experience in designing and implementing

large scale Customer Data Platforms, AI programs in Marketing, Multi-country/ Multi-brand /Multi-Language Web Portals and e-commerce stores and Martech Automation for the BFSI, Retail, CPG, Manufacturing and Hi-tech Space.

About Mindtree

Mindtree [NSE: MINDTREE] is a global technology consulting and services company, helping enterprises marry scale with agility to achieve competitive advantage. "Born digital," in 1999 and now a Larsen & Toubro Group Company, Mindtree applies its deep domain knowledge to 300+ enterprise client engagements to break down silos, make sense of digital complexity and bring new initiatives to market faster. We enable IT to move at the speed of business, leveraging emerging technologies and the efficiencies of Continuous Delivery to spur business innovation. Operating in 18 countries and over 40 offices across the world, we're consistently regarded as one of the best places to work, embodied every day by our winning culture made up of over 21,000 entrepreneurial, collaborative and dedicated "Mindtree Minds."