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# A Customer Data Platform, a Customer Data Hub, or Both?

The Real-Time Customer 360 Solution for Marketing and Beyond

## Overcoming data fragmentation

Gartner defines a customer data platform (CDP) as “a marketing system that unifies a company’s customer data from marketing and other channels to enable customer modeling and optimize the timing and targeting of messages and offers.” With rising interest in the benefits of CDPs, more vendors—including giants like Microsoft and Salesforce—have entered the market. The illusive Single View of the Customer isn’t just a requirement for marketing, however. Departments across the enterprise—customer service, compliance, sales, and product—also require access

to a unified 360-view of customer data, which must go beyond interaction data to also include transaction and master data. Whether commercial or homegrown, the fundamental challenge for a CDP is accessing and unifying the data from disparate data sources. Enterprise customer data is scattered across dozens or hundreds of operational and customer-facing systems. Getting a trusted, holistic, and up-to-date view of any customer isn’t a systems problem. It’s a data problem.

# Customer data is in a mess

If we could start over again, we'd likely architect customer-centric enterprise applications differently, especially when it comes to customer data management.

Why? Enterprises typically have customer data fragmented across dozens of different systems, each one performing a dedicated function with its own siloed, application-centric data schema. There are applications for CRM, billing, web self-service portal, mobile apps, chat, feedback management, campaign management, marketing automation—the list goes on. Each merger or acquisition can double or triple the number of these systems. Meanwhile the sheer volume of data we collect on customers keeps rising, too.

To truly know each customer and make marketing campaigns more effective, today's marketing teams need to leverage all this customer data. Enter the Customer Data Platform (CDP), with its focus on collecting customers' multi-channel interaction data and enabling marketers to optimally segment the customer database for marketing campaigns.

From its humble beginnings in marketing, the CDP is increasingly becoming the one source of truth for all customer data across the enterprise—digital interactions, transactions, and master data—with the promise of serving many departments for a variety of use cases.

## The benefits of a customer data platform

Marketers adopt a customer data platform (CDP) to operationalize the enterprise's collective customer data. They hope to segment customers based on their past interactions, demographics, and other customer data, to personalize the messages and offers they send out to customers. However, the use cases for having a single repository for everything the enterprise "knows" about its customers go far beyond the marketing team.

- **Customized, targeted marketing** - The "original" use case for CDP is still valid: The ability to collect all customer interaction, transaction, and master data to allow analysis and segmentation of customers to optimize marketing campaigns.

- **Personalized self-service customer experience** - An obvious application enables personalized, effective experiences via customer self-service portals, and mobile apps, by providing a single source of comprehensive real-time customer data.
- **Efficient contact center operations** - As with customer self-service, contact center agents need lightning-fast access to a holistic view of the customer they are serving to minimize handle time and improve first contact resolution.
- **Real-time customer analytics improves profitability of every customer interaction** - Injecting live customer data into real-time decisioning and analytics engines, provides agents with next best action recommendations to minimize churn, and capitalize on cross-sell and up-sell opportunities.
- **Simplified integration for the enterprise** - A flexible CDP can act as a single-source customer data hub for delivering a trusted, holistic view of the customer to sales (CRM), supply chain management (ERP), manufacturing (MRP), and other enterprise systems—eliminating the need for complex N:N integrations.

In the beginning, marketing teams selected and managed their CDP tools, for their own use cases, with customer data being marketing oriented—namely, multi-channel interaction data typically refreshed by batch integration processes.

However, IT departments in enterprises are increasingly realizing the benefits in centralizing customer data for the benefits of the enterprise beyond just marketing. This means CDPs must quickly evolve if IT is to consider them as solutions to broader enterprise use cases.

# The core problems of CDP

Despite their promised value to marketing and other teams, most CDPs have a fundamental problem that prevents them from flexibly meeting not only marketing's needs but new use cases as they arise. Namely, enterprise customer data remains siloed in scores of systems and fragmented across even more data islands. Providing real-time access to and control over all that customer data—and a single 360-view of any customer at any time—is mission impossible for most large organizations.

Traditional approaches to handling such data fragmentation simply don't work for the modern enterprise.

- 1. They don't support real-time operational use cases that require access to customer data that's always up to date.** They rely on pouring customer-centric data into data warehouses or data lakes. While you could technically consider this a "single source" of customer data, using complex queries and joins to search billions of records to find the one customer you need is a slow process. Even then, a data warehouse rarely reflects customer data in its current state. This approach may work for historical analysis and most marketing segmentation needs, but it doesn't work for use cases like online customer portals and customer service which require real-time data and interactions.
- 2. They are not linearly scalable** to support customer-360 across interactions, transactions, and master data with split-second response time—meaning you need to constantly commission more expensive hardware to solve the problem.
- 3. They integrate with some COTS applications and leave the rest to you.** Some data management platforms have connectors to popular commercial applications. This may provide faster access to some customer data than a data warehouse—either via an API, web services, or a database schema—but if your enterprise apps aren't in "the list," you have to integrate them yourself. And like data warehouse solutions, if your use case requires updating the source system (e.g., a customer portal), you'll have to do that yourself, too.

- 4. They make building your own CDH solution in-house seem attractive (when it isn't).** If you have use cases requiring real-time data, the data warehouse/lake approach is out. And since every organization has a unique mix of COTS and legacy applications, you'll be writing custom integrations anyway, right? Just remember that massive data integration projects are costly and require constant maintenance to accommodate every new application comes along or use cases that force a schema change.

If the enterprise could overcome the core customer data management problem, it could enable a CDP to more easily handle operational use cases beyond marketing. It must provide segmentation, analysis, and reporting engine marketing demands of it, but it must also serve real-time analytics, CRM systems, churn prediction engines, and any other system that needs access to customer data. And since every organization has its own unique mix of legacy systems (not just COTS applications), it's imperative the CDP be extensible and customizable. A CDP with a rigid, marketing-focused data model and UI may find itself out of the running and obsolete.

## From marketing's CDP to the enterprise's Customer Data Hub (CDH)

If we could solve the data problem first, what more would an organization want from a truly flexible, extensible CDP?

Or does it need a solution beyond a CDP?

An enterprise that requires a central, unified, customer repository to serve its various departments—from marketing, through customer service, to risk and compliance—in actuality must implement a customer data hub (CDH), which differs from a CDP in the following ways:

1. Customer data should be **inclusive of all customer transactions** (in addition to customer interactions).
2. Customer data in a CDH should be always be up to date, in **near real time**—i.e., only milliseconds old—to serve any operational use.
3. A CDH should match, cleanse, and consolidate customer data to serve as the **Golden Customer Record**.
4. A CDH should mask and govern customer data to **comply with data privacy regulations** (e.g., GDPR, CCPA, LGPD, and more).
5. A CDH serves as a **central customer consent repository**, across all customer-facing channels.
6. A CDH should make customer data accessible to **any consuming application**—not just marketing execution platforms—in **any data delivery method** required by these systems and employ tokenization for tight **access control**.
7. A CDH should ensure customer data is **encrypted at rest and in transit**—ideally at the individual customer level—to protect against a mass data breach of customer data.

## The real-time, cross-enterprise Customer Data Hub

Today, more and more enterprises are realizing that the value of a 360 Customer View goes far beyond marketing, to also answer the needs of customer service, compliance, sales, and product teams.

Enterprises understand the necessity for a Customer Data Hub that unifies customer journey data with customer transactions and master data, to support many different operational and analytical use cases.

### The opportunity: A customer data hub for the whole enterprise

No one will argue that the enterprise will continue to place ever-higher demands on customer data hubs, going far beyond CDP's marketing-centric roots.

Customer data hubs will need to contend with fragmented customer data—including customer transactions, interactions and master data—spread across dozens, if not hundreds of **disparate enterprise systems** and databases; the massive amount of data in those silos; and the need to deliver customer data in near real time to a broad variety of applications in support of many different operational use cases.

The customer data hub will serve as a single source of customer data for CRM, campaign management, data privacy, customer analytics, or any other customer data-centric application. By abstracting the data integration, governance, and security away from the consuming applications, the applications can focus on the value they deliver, not the complexities of enterprise data management and data integration. This is the true opportunity and the key to a rapid, efficient, scalable, and (yes) end-to-end customer data solution that can tame even the most fragmented data environment.

We invite you to explore the issue—and its solution—on this site.