

## White Paper

# Customer Data Platforms: Delivering Real-Time CX and Personalization at Scale for Global Brands

Sponsored by: Salesforce

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## IN THIS WHITE PAPER

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This paper represents IDC's perspective on the path of the business transformation that is underway at all firms to become digital first or digital only. These transformations are motivated by the customer-driven imperative for improved customer experiences (CXs) that make the difference between winners and losers in every business and market in which competition exists. The foundation on which improved customer experiences will be delivered is the customer data platform (CDP), which illuminates and animates a high-resolution, ever-changing picture of a firm's customers' interactions, behaviors, journeys and, most importantly, uncommunicated needs and desires through unified profiles that are constantly updated. The CDP profiles feed artificial intelligence (AI) and machine learning (ML) algorithms that identify the perfect moment, deliver the perfect content to the optimal device or channel, and communicate the high level of insight, understanding, and empathy from the brand to its customers that create or enhance trust and loyalty. This paper provides a perspective on CDPs and discusses the importance and value of the technology that enables firms to deliver the high level of customer experience required to compete and win in the digital-first era, now and in the future. CDPs are central to provisioning unified customer data as an enterprise service that can enable every customer-facing function in the business to "sing in unison," and this view is reflected in the Essential Guidance section at the end of this paper.

## SITUATION OVERVIEW

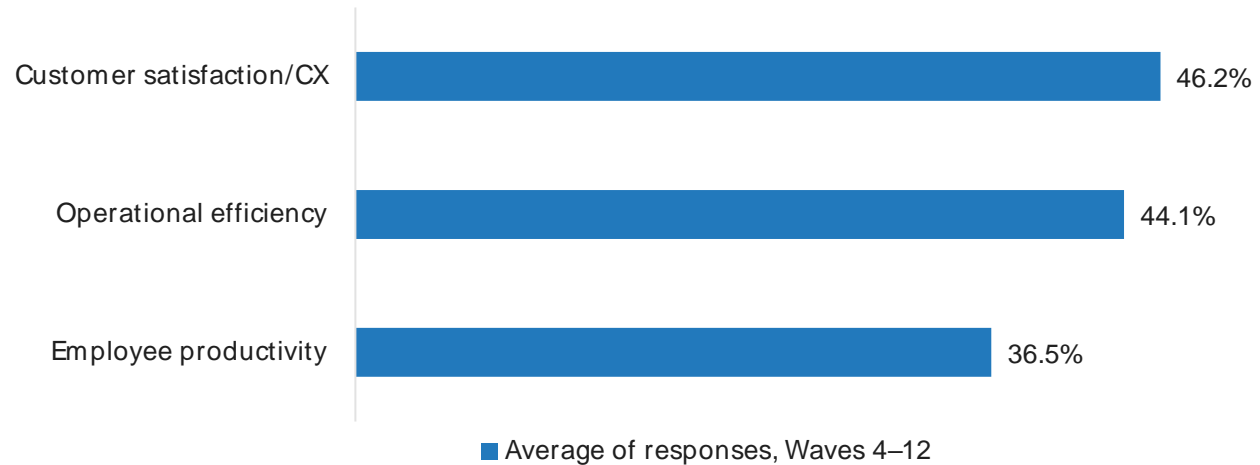
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Digital transformation (DX) is the engine of change for organizations, industries, and the global economy. IDC research has found that over 97% of firms in a global survey agreed with the statement, "we are living and competing in a digital-first world." IDC predicts that in 2022, 65% of global GDP will be digitalized, with over \$9 trillion in direct DX investments from 2022 to 2025. The most important business priority driving digital transformation investments is customer satisfaction/CX, selected by an average of 46.2% of executives surveyed by IDC from May 2021 to January 2022 (see Figure 1).

## FIGURE 1

### Customer Satisfaction/CX Tops High-Level Business Priorities for Firms

Q. What are the top 3 high-level business priorities for your organization?



n = varies from 774 to 920 by Wave

Note: Data shows top 3 of 9 responses.

Source: IDC's *Future Enterprise Resiliency and Spending Survey, Waves 4-12, May 2021-January 2022*

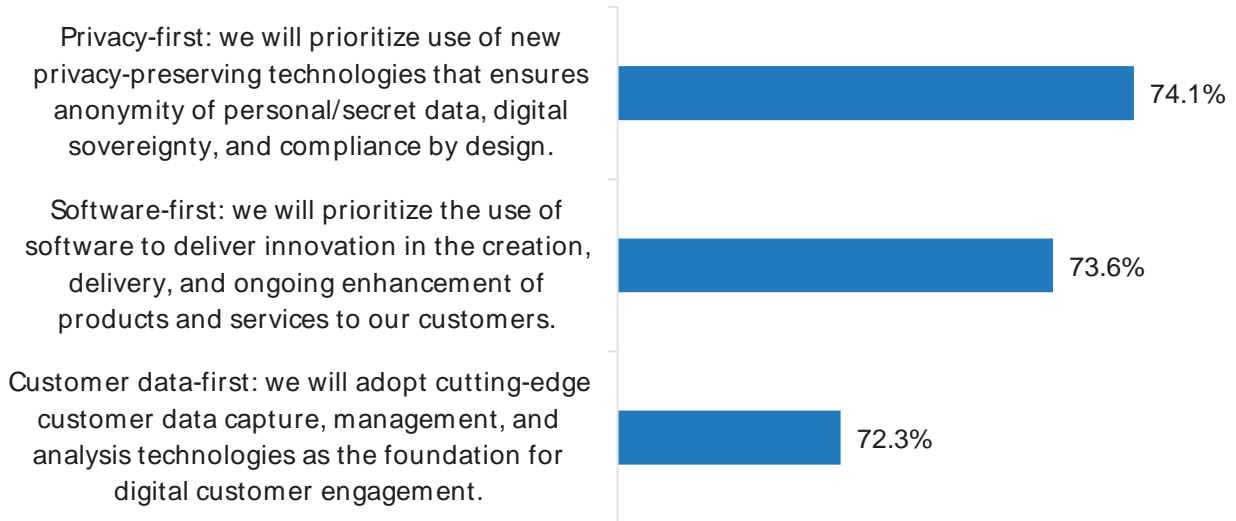
Digital transformation investment priorities are important indicators of where firms are placing their bets, but what about the return on those investments? Customer satisfaction/CX ranks at the top of that list as well, with firms reporting an average 22.3% business improvement in 2020 from their CX investments.

How will firms prioritize their investment approach in the digital-first world? The top 3 responses from IDC's research are aligned with a mix of external and internal drivers: privacy first, software first, and data first. Privacy first is primarily an external driver, reflecting the increasing concerns from both consumer and business customers about the use and protection of their data, but it is also an internal driver with the risk of financial penalties from violations of privacy regulatory requirements like GDPR and CCPA/CCRA. Software first is an internal driver, as firms increasingly adopt cloud-based software applications (SaaS) for marketing, sales, loyalty, customer service, and commerce to accelerate time to value, flexibility, and operational efficiency. Data first is an internal driver, as customer data is the foundation on which customer insights and CX are built (see Figure 2).

## FIGURE 2

### Top Organizational Investments to Adopting Digital-First Strategy Approaches in the Next Two Years

Q. Please indicate your level of agreement with each of the following statements regarding your organization's approach to adopting a digital-first approach in the next two years.



n = 774

Note: Data shows top 3 of 9 responses.

Source: IDC's *Future Enterprise Resiliency and Spending Survey, Wave 8*, September 2021

The drive to continue DX investments to improve CX, along with customer data privacy and regulation concerns, has accelerated growth in the adoption of CDPs as the foundation of the marketing technology (martech) applications stack used by brands to deliver higher levels of customer engagement that engenders positive responses of trust and loyalty from B2C, B2B, and D2C customers.

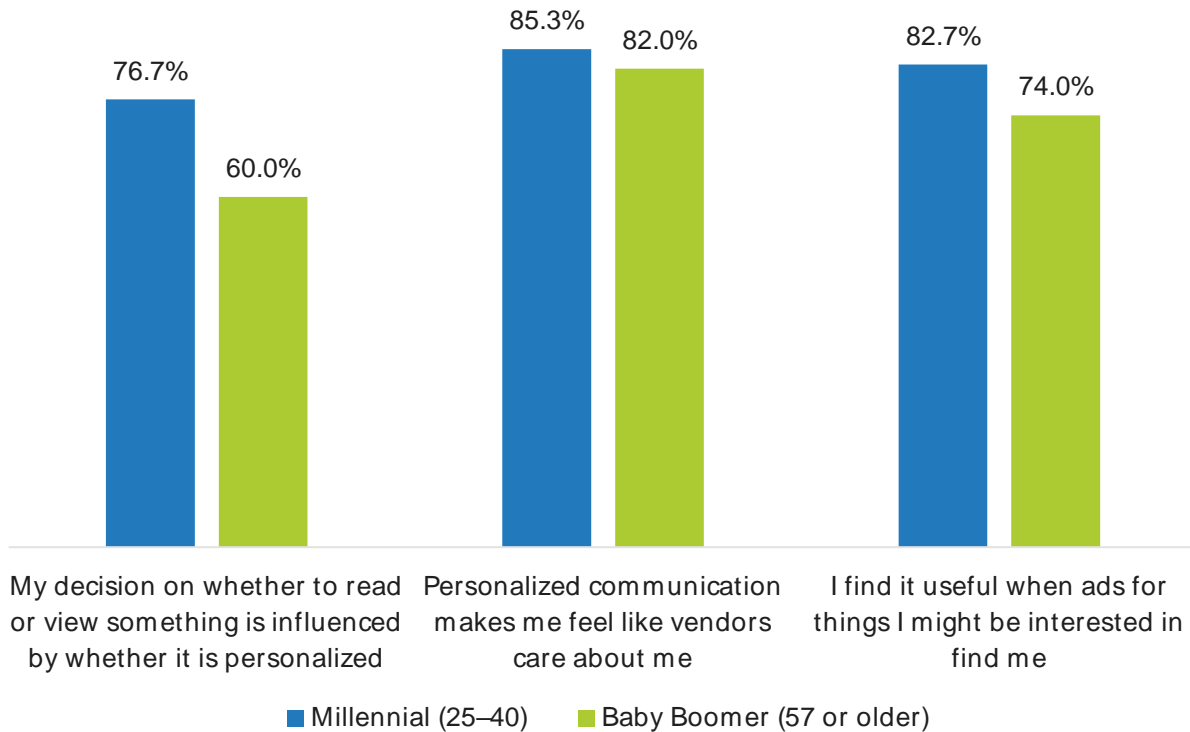
## INTRODUCTION: CUSTOMER DATA

Brands exist to serve the needs of their customers, and customers expect that their favorite brands understand their needs implicitly without having to describe them. Customers share their data with brands and expect personalized interactions in return. IDC research on B2B tech buyers has found that 85.3% of millennials and 82.7% of baby boomers view brands' personalization as making them feel that vendors care about them (see Figure 3).

## FIGURE 3

### B2B Tech Buyer Views on Vendor Personalization by Age Group

Q. Mean summary table – personalization: How do you feel about the way that vendors try to personalize their communication with you? Please indicate how you think each statement expresses your attitude.



n = 350

Note: Data shows top 3 of 5 responses.

Source: IDC's *IT Buyer Experience Study*, August 2021

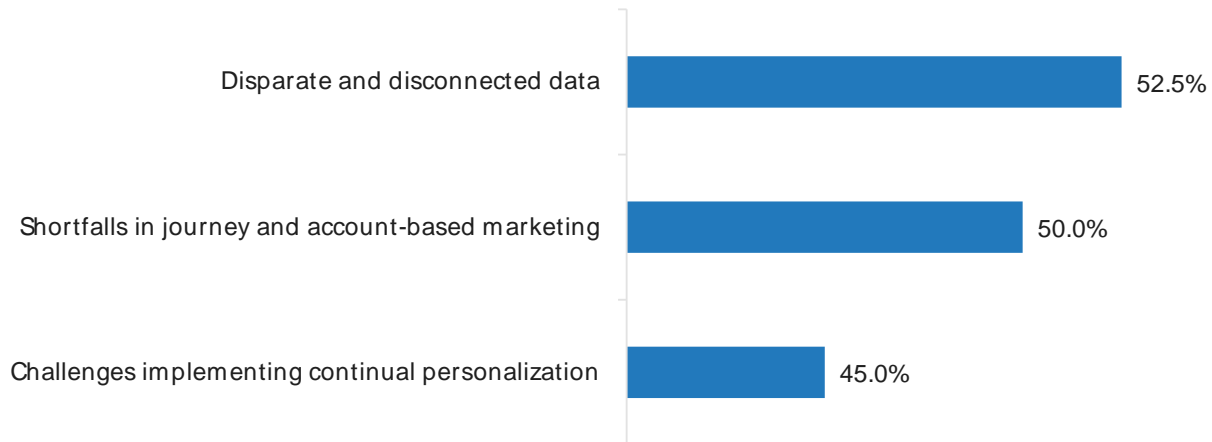
Data about customers and their trading (commerce) transactions began to be recorded 5,000+ years ago on tablets (not iPads, cuneiform) in Mesopotamia in the ancient city of Uruk. While this ancient beginning of customer data may not be well known, a familiar and consistent trend through the past few decades of technology innovation has been that customer data often exists in silos with varied levels of detail, quality, timeliness, and aggregation. These silos have typically been driven by the needs of a corporate function or department using the data for a specific purpose. Customer data in customer relationship management (CRM) systems is focused on customer interactions that are primarily sales focused. Customer data in marketing systems is primarily focused on supporting customer/marketing analytics and outbound campaigns, which may or may not include data from digital channels (perhaps in another silo). Customer service and contact centers also have their silos with customer data to meet the needs of their specific types of customer interactions. Master data management (MDM) projects and cloud data warehouses have been used by IT to solve the customer data silos problem from an enterprise perspective, but these initiatives often don't address all the needs of each department.

The data challenges in marketing have been particularly acute for some time. IDC research identified that in B2B tech firms, disparate and disconnected data was the top challenge at 52.5%, shortfalls in journey and account-based marketing scored second at 50%, and challenges implementing continual personalization was third at 45% (see Figure 4). All three of these challenges align to areas that can be addressed by CDPs.

## FIGURE 4

### Top B2B Tech Buyer Challenges in Achieving Customer-Centric Marketing

Q. What is your top challenge in accomplishing customer-centric marketing? (Choose top 3.)



n = 46

Note: Data shows top 3 of 8 responses.

Source: IDC's *Barometer Future of Marketing Survey*, January 2021

## Enter Customer Data Platforms

The use of the term *customer data platform* as a marketing software category was first published in 2013 by an independent consultant, David Raab. The number of CDP vendors and the size of the market have grown steadily over the past several years. IDC's most recent CDP research identified the total estimated CDP market size at \$1.33 billion for 2020, which is expected to grow to over \$3.2 billion by 2025 at a compound annual growth rate (CAGR) of 19.5%.

What is a CDP? In its most basic form it is, according to Raab, "packaged software that creates a persistent, unified customer database that is accessible to other systems." IDC views CDPs as providing three primary layers of functionality:

- **Aggregation** includes data connectors; data management/quality; security, governance, compliance, and certifications; consent management, speed, and scale; and security. This layer creates unified customer profiles that provide a continually updated view of customers.

- **Analytics** includes segmentation, optimization, performance and attribution, AI/ML, visualization, reporting, and predictions and are focused on the needs of marketing.
- **Activation** includes multichannel engagement, campaign planning and execution, journey design and orchestration, testing and optimization, and outbound connectors to online and offline channels.

All CDPs must have aggregation capabilities, which is core to the value proposition. The breadth and depth of functionality customers need in each of these functional areas depend on several factors, including maturity of their tech stacks, complexity of their data ecosystem, volume and variety of data sources, levels of security and certifications needed, user roles, use cases, scope (single-/multi-departmental versus enterprise), and key business and technology outcomes.

CDPs include a number of capabilities that are listed in the order in which they are utilized from the beginning of the customer data process to its conclusion:

- Ingest customer data from source repositories (internal, external), and store it persistently for activation through analytics (e.g., marketing, sales, service, loyalty, commerce).
- Deliver the ingested data into the CDP using batch, real-time, and streaming techniques (or a combination).
- Manage multiple data formats, both structured and unstructured.
- Perform data quality and hygiene functions (matching, de-duplication, completeness, quality, freshness, governance).
- Map data taxonomy from different source systems into an "apples to apples" customer information model.
- Resolve customer identities across sources, devices, and channels, creating a unified customer profile for B2C, B2B, and D2C relationships.
- Manage data from zero-, first-, second-, and third-party sources, and link new/updated data to the unified customer profile.
- Inherit and maintain data privacy, consent, and governance policies.
- Offer advanced audience analytics and flexible tagging schemas, persona and segmentation models, and personalization capabilities.
- Activate audiences, segments, or individual customers as part of personalized marketing campaigns and inbound experiences using channels like email, mobile, social, web, and SMS (and others) using capabilities within the CDP or through external martech tools via API.
- Activate audiences, segments, or individual customers as part of personalized customer journey experiences (digital and nondigital) in nonmarketing systems such as CRM, commerce, loyalty, or IoT using capabilities within the CDP or through external enterprise tools via API.

## Business Areas Using CDPs

A core strength of CDPs is the unification and identity resolution of customer data into a unified customer profile. This enables the continuing identification of customers as they interact with a brand across touch points (digital and nondigital channels) that also function as data sources of customer actions to continually update the unified customer profiles managed within the CDP. The unified profiles are used by marketing to create segments or audiences based on the following:

- Events and transactions that take place on a brand's web and app experiences
- Interactions with the brand across campaigns, journeys, commerce, loyalty, and customer service
- Traits including user persona, preferences, affinity, and demographics

A CDP makes it easy to create audiences and share audiences with other apps in the martech stack designed for activation, which may include email, SMS communications, and in-app recommendations. The dynamic audiences created within the CDP can also be used to improve the customer journey by personalizing the product experience and by engaging customers across various channels.

Marketers can easily create segments and activate (implement) them using the customer engagement and advertising tools they may already use or utilize AI-based marketer-friendly tools included with the CDP or available as options from the vendor. Growth and product teams can also use the CDP to push relevant in-app messages and experiences, gather feedback, run A/B tests, and so on. Service teams can use CDP profiles to enhance customer experience using personalization during support events using digital assistants, chat, live agents, and onsite service. In-store associates can use profile data to inform clienteling tools for relationship building. Commerce teams can use profile data and improve recommender systems and lifetime value scores, among other things. All these actions can be performed by marketing or other teams mentioned here without continual support of data engineering teams since the customer data is already linked together and the UI and AI do not require users to have data science backgrounds.

## Key CDP Use Cases

- **Engaging customers in real time.** In a digital-first/digital-only world, response times are measured in milliseconds, so the data infrastructure must be optimized to ingest behavioral signals; run analyses to determine a person's identity, profile, transaction history, loyalty status, and potentially many other factors; and then deliver the most appropriate content, offer, product, or next best action.  
Brands should minimize the complexity of the infrastructure needed to address this stack of capabilities by selecting a vendor with integrated solutions.
- **Winning customers and earning loyalty faster.** Greater responsiveness, relevancy, and continuity across interactions sustain customer engagement, loyalty, and value. Actionable insights from a CDP inform every interaction and can reduce acquisition costs, shorten time to purchase, and increase customer lifetime value.  
Brands should not limit their transformation efforts to infrastructure and operational change; rather, they should use new data and insights to accelerate their customers' time to value.
- **Personalizing customer experiences with AI.** Personalization makes content more relevant, engagement more convenient, and offers more enticing. But it requires a strong automated machine learning capability to do all that for many customers in milliseconds. One mistake that brands must avoid with AI is ending up with a fragmented set of tools, models, and data sets.  
Brands should consider choosing a CDP that provides a platform with out-of-the-box AI models and broad capabilities to empower their own data science activities.

- **Building customer trust with a unified, adaptable platform.** Data is a key priority in the trust relationship between brands and buyers. Data safety and security are critical to propagate throughout the customer data ecosystem. CDPs include data privacy tools that protect PII data through several methods, and they can preserve the privacy metadata that comes from source systems. CDPs also manage customer consent (required for regulations including GDPR, CCPA/CCRA, and other regimes) using embedded capabilities and alliances with identity and consent software providers.

The needs for integrated customer data and improvements in customer experience have been recognized by firms for years – in some industries, for at least a decade. While some improvements have been made along the way, the reliance on in-person channels (stores, bank branches, customer service and call centers, etc.) for selling, delivering, and supporting kept the revenue engine running for most firms. This meant projects for customer data, digital and non-digital unification, and customer experience improvements were lower priorities. IDC C-suite research in 2019 found that customer experience was eight on a list of nine enterprise priorities, with resilient business operations ranked seventh. Then came 2020 and the global COVID-19 pandemic, and with that came the sudden halt of all in-person channels. The scramble to start, improve, or fortify digital channels became the driver to improve CX, with the realization that CX could not be improved or even delivered without unified digital zero- or first-party (existing customer) data. The quest for third-party data and spending on digital advertising to drive anonymous visitors to digital sites without the ability to convert them from visitors to customers brought the criticality of first-party data (ironically the data firms already had) to the top of the priority list. The industrywide deprecation of third-party cookies for ad targeting and measurement and the increased focus on privacy for email, mobile apps, and social sites have also been a factor.

Brands have tried to link this data together with IT-led projects with MDM and cloud data warehouses, which aimed to align customer data throughout all the applications a firm may use that touch customers. These projects often had long project durations before any benefits were delivered to the parts of the organization that need the most help – marketing and lines of business. Also, the need for continuous real-time and streaming data updates to customer data for customer journey orchestration and personalization created challenges for these technologies.

The push for a better way to consolidate known customer data started in marketing, looking for a way to link all existing known customer data (zero or first party) using a single identifier in a repository to which would be added all new/additional customer data as it comes into the firm. Marketing also wanted a simple way to administer this data, used for personalized marketing campaigns, recommendations, and next best experiences with the ultimate goal of improving customer experience, which creates more loyal customers for the brand and ultimately more (and more profitable) revenue. These needs drove marketing departments to be the early adopters of CDP software along with digital commerce groups. Marketers still view CDPs, along with AI and ML that are increasingly included in CDP software, as the most significant technologies that are impacting marketing now and in the future (see Figure 5).



## FIGURE 5

### B2B Marketers Select CDP, AI, and ML as Most Significant Technologies Impacting Marketing

Q. *Impact of emerging technology: Which of the following emerging technologies do you believe will have a significant impact on marketing? (Please select the top 3.)*



n = 46

Note: Data shows top 3 of 9 responses.

Source: IDC's *Barometer Future of Marketing Survey*, January 2021

The future of third-party data, or the lack thereof, has brands thinking about alternative strategies for acquiring zero-, first-, and second-party data. IDC research shows that brands have increased interest in industry ecosystems, which require each firm to have expertise in operational initiatives and knowledge that facilitates cooperation with other firms in the ecosystem. Cooperation is likely to include partnering with other firms, which may include sharing data sources for identifying new segments and enriching customer data, firmographics, and other services to enhance first- and second-party data as third-party data decreases in importance. In a recent IDC survey, firms were asked to rank the top technology investment areas needed to participate in industry ecosystems. CDPs scored 3 among 14 possible responses and just next to data management technology (see Figure 6). IDC believes the high score for CDPs is a recognition of the importance of data privacy provided by CDPs, which would be required for firms to share non-PII data in order to enrich audiences and segments with other firms in industry ecosystems.

**FIGURE 6**

## Customer Data Platforms in Top 3 Investment Areas for Firms Operating Within Industry Ecosystems

Q. *What are the top technology investment areas to enable your participation in industry ecosystems? We define shared operations and expertise as the standard operational initiatives (supply chain, service, innovation) that enable industry ecosystems to mutually function and the complementary expertise and knowledge that enhance industry ecosystem performance.*



n = 778

Notes:

Data shows top 3 of 14 responses.

Respondents are within an industry ecosystem.

Source: IDC's *Future Enterprise Resiliency and Spending Survey, Wave 9*, October 2021

## Current and Future Uses of CDPs

### Current User Groups

- Nontechnical front-office users in functions such as marketing, customer experience, loyalty, customer service, customer support, and sales (Representative use cases include real-time personalization, journey orchestration, segmentation, campaign execution, and measurement.)
- Technical users such as marketing technology and operations, data science and analytics, IT, data operations, and privacy and compliance (Representative use cases include Customer 360, unified customer records, data integration, identity resolution, data management and quality, customer insights, and data science.)

It is important to mention that all CDPs can be used by people in any of these roles and more, but the level of tooling for nontechnical users is variable, and some solutions are designed for other systems in the infrastructure to provide deeper capabilities for analytics, channel activation, and so forth. In addition, IDC expects over time, the front-office user base will expand more rapidly and become a larger portion of every vendor's installed base. The relative importance of each type of user for a given CDP buyer depends on many factors including use cases, outcome objectives, and infrastructure maturity.

### **CDP: The Enterprise View**

CDPs were first adopted by marketing and sponsored by the CMO; however, two enterprise drivers that have risen in importance have shifted the responsibility beyond marketing. The need for a consistent personalized experience across all touch points must include the needs of customer service, contact centers, and loyalty. And, with customer and organizational concerns about data privacy, consent, and increasing financial and reputational risk from regulatory actions due to privacy regulations (GDPR, CCPA/CCRA, others), the responsibility for customer data must expand from marketing to the enterprise.

CIOs, with responsibility for setting technology and data standards for firms, are increasingly involved in CDP projects and add their expansive view of the needs for customer data and the benefits of digital transformation projects across the enterprise. In a recent IDC survey, CIOs ranked DX improvements in employee productivity and innovation higher than other executive groups, which illustrates the breadth and depth of their cross-enterprise view. Other C-level executives that may weigh in on CDP projects include CTOs, CDOs (chief data officers), CROs (chief risk officers), and CCOs (chief compliance officers). While the number of senior executives that may weigh in on CDP projects has increased, IDC views that as a positive sign for the adoption of CDPs as an enterprise customer data service that can address a variety of needs.

### **Considering Salesforce for Customer Data Platforms**

Salesforce has a unique perspective on customer data, informed by 22 years of experience building and growing a customer relationship management software business, which was founded on delivering valuable customer data insights, first to sales teams and then expanding to service, marketing, commerce, and other areas. Salesforce also has a unique perspective on delivering software products using customer data to its clients via a subscription business model (SaaS) since its launch. Today, Customer 360 connects marketing, sales, commerce, service, and IT teams with a single view of customer data. Salesforce's Customer Data Platform was launched in October 2020. The Customer Data Platform is designed to fit into a customer data ecosystem that requires agnostic connectivity into a varied array of enterprise systems using Salesforce's multicloud platform architecture (Hyperforce) that enables flexibility to meet customer requirements for data and applications to reside on the cloud provider of customer's choice.

The ultimate goal of the customer data infrastructure should be to make customer data an enterprise service equally available to all applications across the front office. By doing so, such an infrastructure should enable every customer interaction to enhance every other interaction, regardless of when, where, how, or with whom it takes place. This capability becomes the basis for better data utilization and opens largely untapped potential for data-driven innovation.

A fully realized customer data ecosystem has three fundamental jobs to do, each of which has to be done in low-latency response times with embedded governance and identity management:

- **Aggregate customer data.** Integrating with MuleSoft provides an array of API capabilities needed to connect many different enterprise systems into the Customer Data Platform. The integration with MuleSoft is a game changer as it elevates Salesforce's connection capabilities on par with or beyond most other CDP offerings.
- **Analyze customer data.** The integration with Tableau is another game changer for Salesforce. Tableau will help marketers make better sense and better use of the enterprise data set that the Customer Data Platform makes available to them by simplifying data discovery, insights, and model building. Marketers can monitor which customers are engaging, on what channels, and what drives their interest by drilling down to views by campaign, channel, content, offer, product, and customer dimensions.
- **Activate customer data.** Opening the Customer Data Platform to Salesforce AppExchange is also a game changer. This brings the depth and breadth of the partner ecosystem to the customer data ecosystem, enabling partners to build integrations with the CDP. As a result, partner apps will be able to efficiently produce and share customer data, thereby improving the value the apps deliver to customers.

On a departmental level, particularly for marketing, a CDP on its own can accomplish most, if not all, of the aforementioned fundamental jobs. But on an enterprise scale, a CDP must be part of the larger customer data ecosystem. By rethinking its CDP offering in this framework, Salesforce has made branding, product, and partnering decisions that will better differentiate its Customer Data Platform on its native capabilities, but perhaps even more so with the integration and analytics services that MuleSoft, Tableau, and the AppExchange contribute.

## CHALLENGES

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Salesforce's Customer Data Platform currently has a B2C-based customer profile schema, with plans to enhance B2B and B2P capabilities in the future. Salesforce also does not provide crowdsourcing for data definitions, ratings, and data governance nor does the Customer Data Platform provide collaboration for data owners. IDC expects that Salesforce will address these capabilities in future releases. Salesforce also has a GTM challenge of focusing the attention of customers and its sales force on the value of any specific product (the Customer Data Platform in this instance). This challenge is similar to that faced by its application cloud vendor competitors like Adobe, Microsoft, Oracle, and SAP. In Salesforce's case, the rapid pace of technology acquisitions that benefits the company's customers overall becomes a challenge when focusing on a specific part of a larger market.

## OPPORTUNITIES

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Salesforce continues to be successful growing its cloud applications through both internal innovations and strategic acquisitions, including Slack, MuleSoft, Tableau and, more recently, Narrative Science (AI-based natural language generation [NLG] technology), which become part of Tableau. Firms interested in implementing a CDP as a part of an integrated marketing and enterprise application ecosystem grounded on data and AI should consider evaluating Salesforce.

## ESSENTIAL GUIDANCE

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To compete effectively in a digital-first/digital-only world, brands need to transform their customer data infrastructure, their customer data practices, and the role of marketing as an intermediary between buyers and sellers. It is not possible to orchestrate customer experience unless customer data is a low-latency, compliant, and secure enterprise service. This requires an approach to customer data management that frees customer data from departmental application silos and is based on an infrastructure capable of enabling every interaction to enhance every other interaction, regardless of where, when, or how it is conducted. CDPs are an essential part of an enterprise customer data ecosystem that can extend beyond marketing and incorporate every customer-facing function in the business. These front-office functions like marketing, sales, customer service, and operations (customer success, marketing, sales) are better together with the CDP as part of an integrated cloud-based platform.

## LEARN MORE

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### Related Research

- *IDC MarketScape: Worldwide Customer Data Platforms Focused on Front-Office Users 2021-2022 Vendor Assessment* (IDC #US47524621, December 2021)
- *Dreamforce 2021: Salesforce Continues to Evolve and Grow* (IDC #US48391421, December 2021)
- *IDC FutureScape: Worldwide Chief Marketing Officer 2022 Predictions* (IDC #US47732122, October 2021)
- *IDC FutureScape: Worldwide Future of Customer and Consumer 2022 Predictions* (IDC #US48297321, October 2021)
- *Worldwide Customer Data Platform Forecast, 2021-2025: Market to Surge to More than \$3 Billion by 2025* (IDC #US48054421, July 2021)
- *Worldwide Customer Data Platform Market Shares, 2020: The Flight to First-Party Data Is On, and CDPs Win Big* (IDC #US48052920, July 2021)
- *Salesforce's CDP Is Finally Named "Salesforce CDP" and Upcoming Integrations with MuleSoft and Tableau Will Accelerate Data-Driven Innovation Throughout the Enterprise* (IDC #US47687421, May 2021)

## About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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