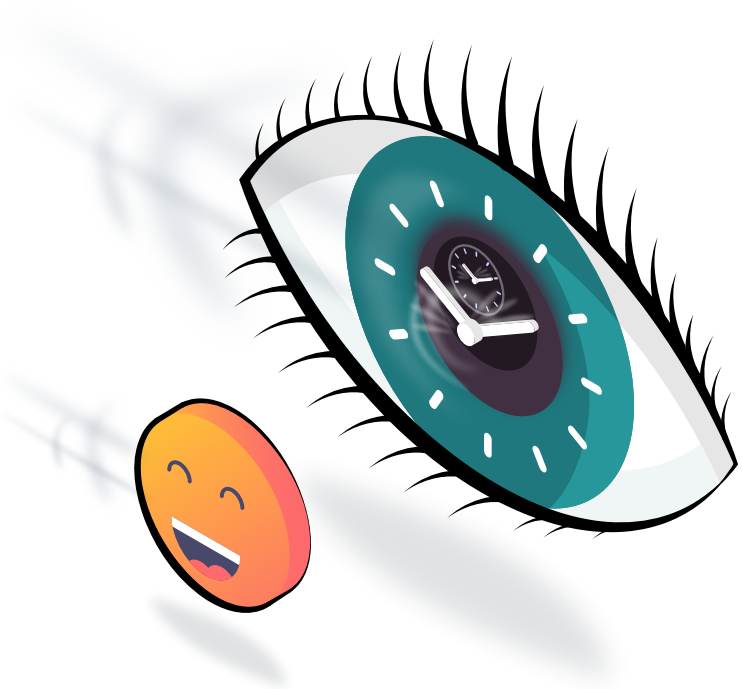
Real-time Done Right

From Customer Insights to Customer Engagement

NG DATA

CDP CUSTOMER DATA PLATFORM INSTITUTE

CUSTOMER DATA PLATFORM INSTITUTE



Today's customer expects immediate, individually-tailored reactions to events across every digital channel. Many companies fail to provide this, even though the necessary technology is available. This paper will explore why real-time customer experience is important, what's needed to deliver it, and how to overcome the obstacles to success.

Real-time Opportunities

Before starting on your journey to becoming a real-time enterprise, you'll need to decide whether the trip is necessary. At many companies, the Covid-19 pandemic has made the need clear by pushing large portions of their business online. Often this led them to accelerate digital transformation projects that were already being considered. Initial efforts focused on immediate needs such as supporting employees who were suddenly working from home. Once those were secured, the goal frequently changed to giving customers a better experience by taking full advantage of digital capabilities.

Opportunities created by the digital transformation vary with the situation. These can span the customer lifecycle from acquisition through retention. Typical examples include:

Acquisition

- **Website personalization**
  Monitor each website visitor's page views and downloads to understand their interests and preferences. Track visitors over time to build a detailed profile and connect this with customer information if the visitor is already a customer. Use all this information to present the most relevant information in real-time.

- **Data collection**
  Create interactive tools such as mortgage calculators and telco plan selectors that encourage people to provide detailed information about their needs and situation. Once they have identified themselves, supplement the collected information with real-time access to third party data about the individual. Use the results to provide immediate response, to predict the future value of the relationship, and to build an enriched profile for further use.

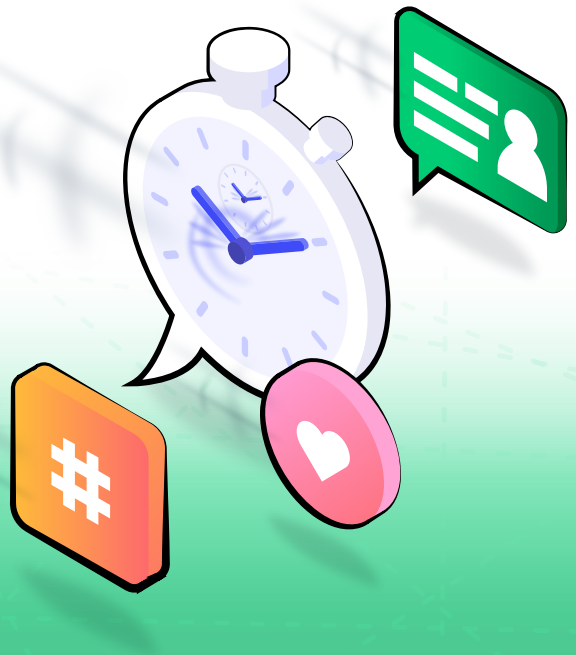
- **Reengagement**
  Visitors who do not complete a purchase can be reengaged before they leave the website with alternative recommendations and additional information to encourage further interaction. After they've left the site, you can send them follow-up messages via email, display ads, direct mail, and other channels.

Relationship Growth

- **Upsell recommendations**
  Track customer activities and recommend changes to optimize their product selection. An insurance company might react to an address change with advice on reviewing coverage limits. A telephone company might review talk time, data use, and roaming behaviors to recommend a more suitable billing plan. A credit card company might suggest that a frequent traveler switch to a card with more travel benefits, or simply remind the customer of the existing benefits they are not using.

- **Event-triggered advice**
  Send advisory messages to customers based on real-time events. For example, a bank might notify a customer about a negative account balance or potential fraud transaction. A mobile phone provider might alert customers in areas with temporary service outages and offer alternatives such as instructions to access Wi-Fi hotspots.

- **Engagement programs**
  Enroll customers in on-going programs that enrich their experience, such as wellness programs for health insurance companies and financial planning tips for banks. Monitor engagement rates and periodically ask for direct feedback. Adjust message frequency and content based on customer reaction.



Retention

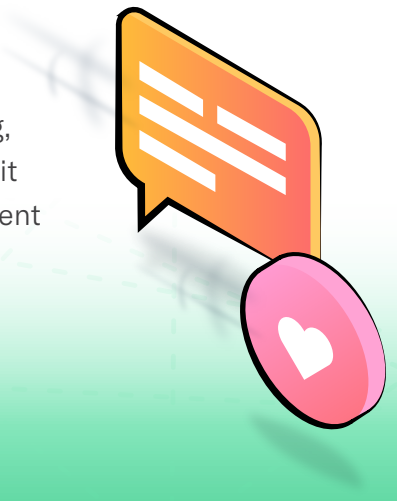
- **Service programs**
  Offer services such as upcoming and overdue payment reminders, renewal notices, and overage alerts when customers approach a usage limit. These build loyalty and offer an opportunity to insert other messages promoting new products or services.

- **Inbound support**
  Provide customer support agents with full information on each customer. This should include historical data plus real-time access to website visits, mobile app behaviors, and in-store and online purchases. The information can be used by predictive modeling systems to recommend the best actions to take during a call and in follow-up messages. The same approach can guide automated support systems such as chatbots.

- **Churn pre-emption**
  Observe customer behaviors to identify individuals with usage patterns or service problems that suggest they are a high churn risk. Reach out to these individuals with offers tailored to their situation and expected future value. This sort of approach can substantially reduce retention costs by ensuring that incentives are only offered when needed and by ensuring the incentives are the most appropriate for the individual.

Real-time Capabilities

Once you've decided to pursue real-time processing, you need to set clear objectives. That's harder than it sounds because "real-time" can refer to many different activities. These fall into two broad categories: real-time insights and real-time conversations.



Real-time Insights

These are capabilities to ingest, store, and analyze data as it appears in company systems. The results may be an updated customer profile or alert to take action.

- **Data access**
  This refers to reading existing data in real-time. A familiar example would be checking your bank balance through a mobile app: you expect to an immediate answer. In the context of customer experience, real-time access usually requires enabling a customer-facing system to read data from a unified customer profile, such as a Customer Data Platform. This is typically done with a query or API call. It's the most basic level of real-time processing.

- **Data updates**
  The balance in your bank account may not be updated in real-time: many bank systems post transactions nightly, and certain transactions are pending for longer periods. This illustrates the distinction between real-time access to existing data and real-time updates to that data. It's a particularly important difference where customer profiles are concerned, since the systems feeding data into the profiles often do not send new information immediately, and the customer profile systems themselves may add new data in batch processes rather than as it's received.

  (There are nuances within these nuances, such as whether identity linkages are updated in real-time, how quickly the system recalculates derived values such as aggregates and model scores, and limits on access or timeliness if data is copied into a separate file for real-time access. Any of these might be critical for a particular use case, so it's important to understand how your system handles them before assuming that use case is supported.)

- **Event triggers**
  This is a specialized capability to scan real-time data streams and react to specific events. An abandoned shopping cart is one common example; a credit card fraud alert would be another. If the trigger is based on an input stream to the customer profile system, it can execute without real-time access or updates to the profiles themselves. Other triggers may rely on processing within the profiles, such as comparing a current location with a customer's normal travel patterns. In this case, some real-time profile access and updates may be needed for the trigger to work. Often the trigger result will itself be pushed into the customer profile system: for example, customers with an abandoned shopping cart may be added to a list of people retargeted in email, text, or display advertising.

Real-time Engagement

These are capabilities to hold a real-time dialog with the customer, with the system and customer responding to each other's actions.

Such a dialog requires identifying the customer at the start of the interaction, so the system can use her profile contents in choosing its initial response. The system then needs to update the profile with new customer actions as they take place, so further responses are always based on the most current information.

The building blocks for this dialog are:

- **Insights**
  These are predictions, recommendations, segment assignments, trend measures, and other derived values based on customer data. To provide real-time guidance to decision engines, the insights must be updated as new data is received. This new data is combined with historical information about the customer when a historical profile exists. Insights such as churn risk or usage trends may be continuously revised as new data is received, and then trigger an outbound message or real-time interaction when a threshold is reached.

- **Decisions**
  These are the actions chosen during the interaction. They are made by applying historical and current data to existing rules. Rule inputs often include real-time insights such as propensity and intent model scores, which must be recalculated after the latest data is received and before the rule itself is executed. Rule inputs may also include other real-time data such as recent contact frequency, offer eligibility, and response likelihood. Rules may constrain how insights are applied, such as limits on how many times the same item is offered or a requirement to show products from different categories.

- **Orchestration**
  This controls how decisions are executed across time and over channels. Interactions today often span multiple channels: a website session may become an online chat session that becomes a live phone conversation. The orchestration engine might initiate such transitions by monitoring customer behaviors in real-time and offering a chat or live session when it seems the customer needs help or is about to abandon a purchase or service request. Orchestration engines may also initiate new interactions based on trigger events such as a change in credit card usage, telephone service interruption, or an abandoned shopping cart: in those cases, the role of the orchestration engine is to pick the best channel for the selected message and to feed the necessary data to that channel system. The orchestration engine is also responsible for sending each customer-facing system the data it needs to execute the interaction correctly.

Which category should be your real-time program objective? The answer depends on your ultimate purpose, which is to meet or exceed your customers' expectations for real-time interactions. This will depend on what you're offering today, what they can get from competitors, and how much value customers will place on any improvements. In industries where cross-channel interactions are common, such as banking and telecommunications, you should target orchestration from the start.

But setting the target category is not enough. Each interaction category can be deployed in different ways to support different applications. Your goals need to be defined in terms of applications, such as improved customer engagement or call center support. Once you have selected a specific application, you can define the capabilities it needs for data access, updates, triggers, insights, decisions, and orchestrations. This will yield a concrete set of requirements that you can then use to assess the effort to deploy that application. Once you've done this for several applications – and also assessed the value of each application -- you should start to see which requirements are most widely shared and be ready to develop a prioritized deployment list.

The Process for Putting Together a Real-time Infrastructure

"Seamless" execution is a tired cliché, but it's nevertheless true that customers expect their experiences to run smoothly. This requires careful testing at every step of the real-time interaction process, starting before any system is acquired. The applications you identify when setting your requirements need to be defined in detail and tested to ensure your final systems can in fact execute them.

The amount of testing will depend on the current state of your systems: if you already have a particular data source or delivery system in place, you don't need to test it again. But if there's a process you're not currently running, you need to confirm that it can be connected to your existing systems and will perform as needed. End-to-end testing is especially important for real-time processes, since such activities are impossible if even one step in the process does not have a real-time capability. Comprehensive testing will often require a pilot project or proof of concept implementation.

The more separate systems you are connecting, the more time you'll need to spend building and testing connections between them. This is where there's an advantage to using broad-scope systems such as a Customer Data Platform that includes analytics, campaigns, interactions, and orchestration capabilities.

Simply put: Do in advance whatever's necessary to avoid surprises after you've committed to a particular choice. This might delay the initial purchase, but most of the tasks must ultimately be completed before actual deployment, so doing them sooner will actually save time later in the process – with the additional benefit that future problems are uncovered when it's still possible to avoid them, or to start fixing them before they delay completion.

The Time Is Now

One of the few things we can confidently say about the future is that customers will continue to demand an excellent experience. Personalized, real-time interactions will play an important role in meeting that demand. Companies that are not already delivering those interactions need to look closely at the opportunities they present, assess the value of those opportunities, and execute a plan for achieving them.

Assessing Your Real-time Interaction Strategy: Checklist for Organizations

Today's customers expect contextually relevant communications in real-time – but are you equipped to deliver them? From assessing your data maturity to gauging your real-time decision-making capabilities, evaluating your current infrastructure is crucial to truly connect with your customers.

Get our helpful checklist with all the questions you need to answer to analyze your existing real-time engagement strategy and identify the next best steps to success.

Get the Checklist on www.ngdata.com/real-time-checklist

About CDP Institute

The Customer Data Platform Institute educates marketers and marketing technologists about customer data management. The mission of the Institute is to provide vendor-neutral information about issues, methods, and technologies for creating unified, persistent customer databases. Activities include publishing of educational materials, news about industry developments, creation of best practice guides and benchmarks, a directory of industry vendors, and consulting on related issues.

The Institute is focused on Customer Data Platforms, defined as "a marketer-controlled system that maintains a unified, persistent customer database which is accessible to external systems."

The Institute is managed by Raab Associates Inc., a consultancy specializing in marketing technology and analysis. Raab Associates defined Customer Data Platforms as a category by Raab Associates in 2013. Funding is provided by a consortium of CDP vendors.

About NGDATA

NGDATA, founded in 2012, lets you better engage with your customers. **Our Intelligent Engagement Platform (IEP)** builds sophisticated customer data profiles (Customer DNA™) and drives truly personalized customer experiences through real-time interaction management. With **capabilities beyond a standard Customer Data Platform**, NGDATA boosts commercial success for all clients by increasing customer lifetime value, reducing churn and lowering cost per conversion.

Contact:

CDP Institute
231 2nd Avenue
Milford, CT 06460
www.cdpinstitute.org
info@cdpinstitute.org

NGDATA
Sluisweg 2 Bus 10
9000 Gent, Belgium
www.NGDATA.com
info@ngdata.com

CUSTOMER DATA PLATFORM INSTITUTE

NG DATA
big data made small and beautiful