Teradata® Customer Journey:
A New Set of Keys to Drive Customer Experience

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Executive Summary

At any moment in a large organization, chances are that its customers could span the entire range of engagement—from an initial flirtation to a longtime commitment. Even though each one of these customers sees their own steps along the long, circuitous path as unique, to marketers they are indistinguishable as individuals.

To organizations, customers are usually understandable only in the aggregate, and that's how customers are managed. Which segment responds best to email and which to postal mail? Which is likely to shop for quality and which one for economy? Which respond to emotion and which to facts?

Many questions about individual behavior are unanswerable and ignored. For example, why does someone try out a bank's online mortgage calculator and then abandon the quote given? Was the quote too high, or were they just curious?

Several products on the market have tried to answer these questions. But in the end, businesses still have incomplete customer views, "real-time" insight that often arrives too late, and an inability to present in-the-moment offers. Most tools force a segment view of customers despite a surging aspiration among today's consumers to be seen as individuals, not as one of a herd.

Understanding the behavior of individual customers is technically daunting even on a small scale, much less in the tens of millions. Even more difficult is knowing when to intervene, what to offer, and over what channel.

Teradata® Customer Journey is designed to do just that. One-to-many engagement can be replaced with personalized engagement—for each customer, at the right moment, and across all channels whether online or offline.

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The Problem to be Solved

The CMO of a large organization, with tens of millions of customers, can only dream of the days, back in his youth, when he delivered newspapers to a few dozen households. He knew most people by name, knew which ones complained about late papers, and which ones gave a nice tip at year's end.

Today, he knows customers only as market segments, a frame he knows fails to render complex buying behavior. Worse, he views the behavior primarily through a rearview mirror. He's left with little ability to meet anyone's expectations or to intervene in time to help reach any destination.

The CMO also longs for the simplicity of one or two channels he began his career with. Today, customers shop on mobile devices, on the web, by phone, in stores, and more. Many of them hop from one channel to another, and in most cases don't even identify themselves, leaving no clues about why they came, or why they left.

Where did the customer come from and where is she going? Where does she stumble, turn back, or abandon the purchase, and why? Which message or offer will help bring her back on the path to purchase? What is the right time to intervene, and on what channel? Understanding and optimizing the customer journey across multiple touch-points and channels—that is the CMO's challenge today.

Shortcomings of Existing Technology on the Market

Responses to these challenges have proliferated. But most of the solutions offered have critical weaknesses.

- A narrow range of data sources and siloed data. Many solutions lack the ability to access and combine data across all channels and systems. Some rely on just the digital channel data and are unable to connect online and offline customer data. This results in an incomplete view of customer needs, values, and behavior.

- Limited insights into the data. All the data in the world is worth nothing if analytical tools are too weak to find meaning. Most solutions include only basic reporting, lacking sophisticated predictive analytics. Even those that include analytics offer only a few advanced techniques, which limits the depth and breadth of insights.

- Inability to act on insights when it matters most. There is no sense investing in capturing real-time data or advanced analytics if insights can't be applied in real time. The customer who walked out, logged off, or hung up the phone is no longer around to benefit from it.

- Inability to perform at scale. Making sense of billions of interactions for millions of customers can be challenging, especially in real time. Many solutions can work on a smaller set of customer data. But at the volumes that larger companies work with, most of those solutions fail or perform at a considerably slower pace.
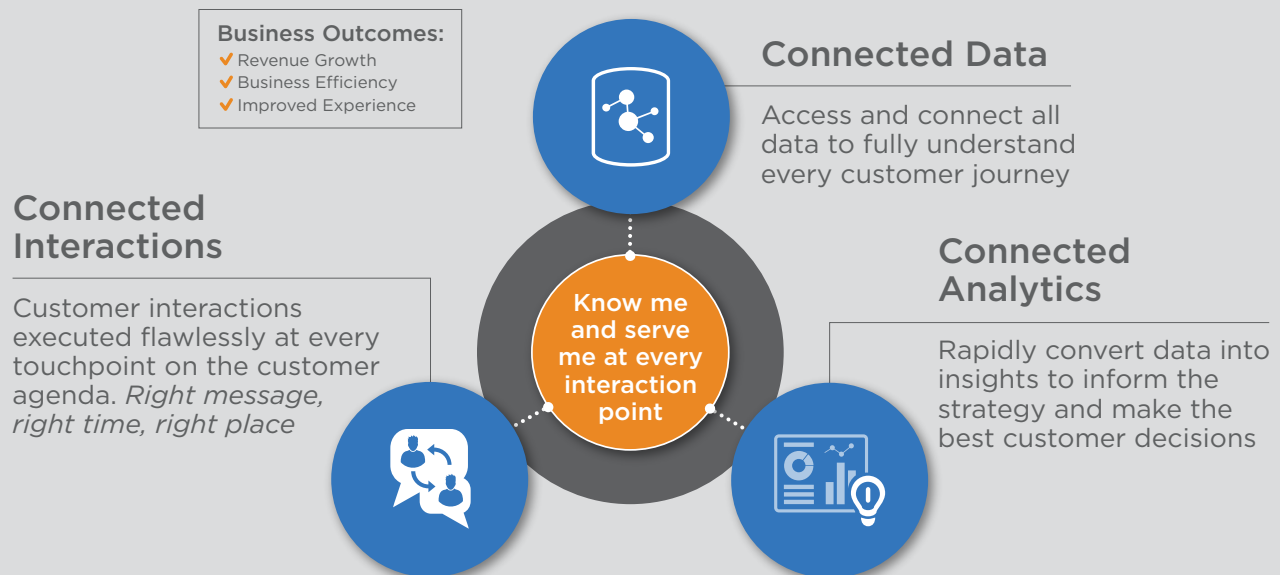
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Connecting the Customer Journey

Business Outcomes:
✔ Revenue Growth
✔ Business Efficiency
✔ Improved Experience

Connected Data
Access and connect all data to fully understand every customer journey

Connected Interactions
Customer interactions executed flawlessly at every touchpoint on the customer agenda. *Right message, right time, right place*

Know me and serve me at every interaction point

Connected Analytics
Rapidly convert data into insights to inform the strategy and make the best customer decisions

Figure 1. The three pieces of Teradata Customer Journey work as a whole, connecting the data, connecting analytics, and connecting interactions.

Three Essential Components to Navigate a Customer Journey

Such technical inadequacy cannot be reconciled with the growing demand among customers to be seen as individuals. In particular, their demand calls for three capabilities that have been hard to come by.

A Complete View of the Customer

Understanding a customer's behavior starts with a full, 360-degree view, built on all data available, from all sources: web, mobile, and transaction systems, data from offline channels such as call center and physical locations, and CRM systems. That data must be enriched with data on attitudes, psychographics, promotional response, and more. And it has to be real time, to provide organizations the most contextually relevant window into the customer.

Sophisticated Analytics

What does each customer want? What offer would appeal to this person the best? What are the individual's rhythms, preferences, and buying habits? Marketers need advanced analytics that provide a deep and complete understanding of each individual. They need a system that continuously learns as new data is captured about the customers, and real time decisioning ability to target customers with personalized and relevant offers and communications.

Interaction Management

Analytical insights about customers become valuable when they can be acted upon, in time, to influence them with relevant, personalized offers, reminders, prompts, and other messages. Interaction management capabilities that enable marketers to reach customers, with targeted messaging, through their preferred channels, at the right time are critical to ensure a personalized and individualized customer experience.

Teradata Customer Journey

Teradata Customer Journey solution offers marketers the ability to optimize each customer's experience. With connected data, analytics, and interaction management, Teradata Customer Journey provides marketers critical new capabilities:

- A 360-degree view of the customer—across all channels and systems, to see not only where the customer has been or what the customer has done but also what the customer is doing in real time.

- Advanced analytics for more accurate insights into customer behavior to not only understand the customer journey but also to anticipate the path ahead.

- The ability to intervene and influence customer journey, while underway, by delivering the right message to the right customer at the right time, in any channel.

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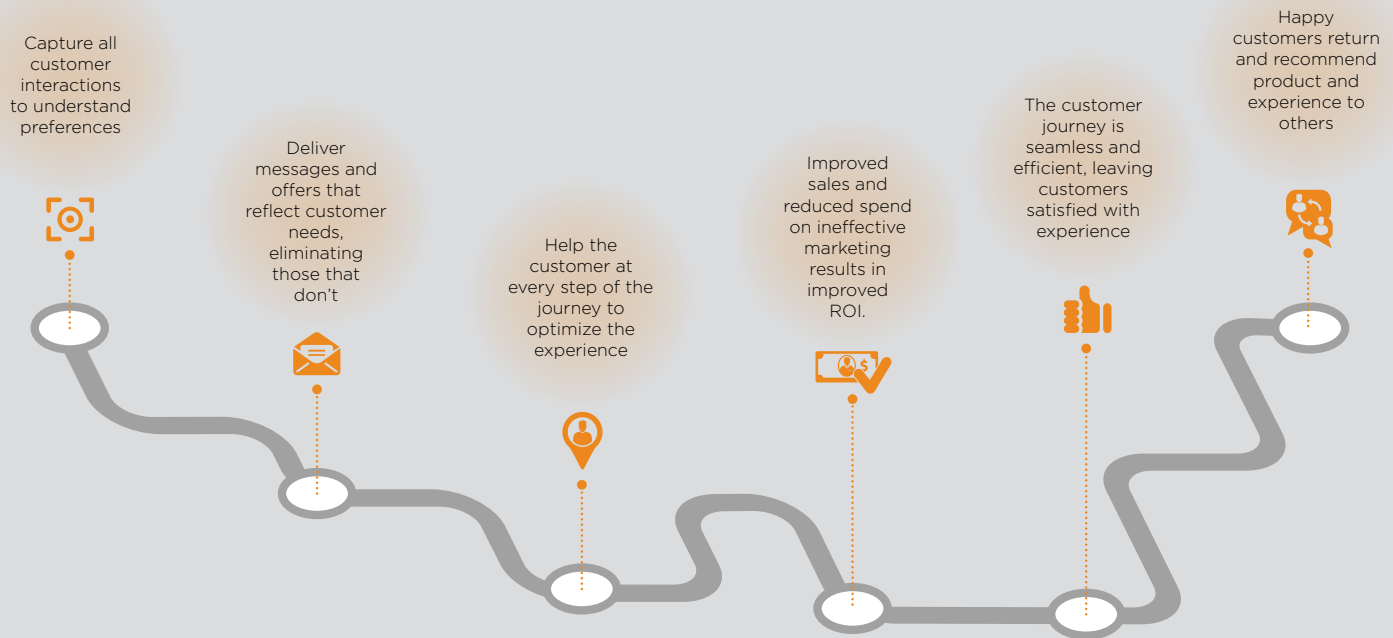## Deliver Improved Customer Experiences and High-Impact Business Outcomes

Capture all customer interactions to understand preferences

Deliver messages and offers that reflect customer needs, eliminating those that don't

Help the customer at every step of the journey to optimize the experience

Improved sales and reduced spend on ineffective marketing results in improved ROI.

The customer journey is seamless and efficient, leaving customers satisfied with experience

Happy customers return and recommend product and experience to others

Figure 2. The well managed customer journey.

- The capacity to flex and scale with increasing volumes of data, more complex analytical needs, and emerging and expanding numbers of channels.

The Organizational Journey

Sometimes such big, bold new technological capability can look like a problem to those who've done the same work the same way for years. Their head says one thing, but their heart says forget it. That's where Teradata consulting comes in.

Teradata's consultants know the technology, and they know the hurdles that come up —entrenched stakeholders, tools bias, lack of expertise in latest marketing techniques, and more. They know how to help.

Customer Journey Scenarios for Three Industries

How do such capabilities play in the real world? Here are three cases, across three different industries, that illustrate how Teradata Customer Journey helps transform a business. The names have been changed, the cases are composites, but the capabilities described are true.

Real Estate and Banking: Frank and Frieda Use New Money to Buy a Home

Funds flowed into Frank's bank account a few days after his late uncle's assets were distributed. A day later, with fortunate timing, he received an email from his bank about home mortgages.

Though Frank and his wife, Frieda, loved their house, they did have a growing family and felt squeezed. With the new funds, their conversations about moving to a larger house accelerated. One Saturday morning, Frank and Frieda began perusing a site of a large real estate firm. They liked four houses in particular. That weekend, they settled on one and made an offer.

Offer accepted, it was time to apply for a mortgage—and Frieda dreaded what she feared would come next: endless requests for more documents, struggling to keep up with the timeline, and waiting for approval. She posted her foreboding on Facebook to her legion of friends.

That evening Frieda received her own well-timed email from the bank: Had she heard of the bank's "express mortgage" program? With excellent credit—and Frank and Frieda certainly had that—the whole process was vastly simpler and faster.

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Under the Hood

The timing of the email to Frank about mortgages and the later one to Frieda about the express mortgage program, was no coincidence. Teradata Customer Journey triggered each one.

The bank had set up a trigger email campaign using the connected-interactions capability of Teradata Customer Journey to qualified customers with a substantial inflow of funds. They were good candidates for mortgages or other investment products, according to the insights from the connected analytics capability.

Frieda received her email based on her Facebook posts. Analysis of her social media and their account activity showed the bank that, while a larger house was on their minds, they were also concerned about mortgage approval complexity. Based on these insights and the solution's connected interactions, the bank orchestrated messaging to offer them express mortgage processing.

Though Frank had only recently given the real estate firm his name, he was already well known there. He had visited their site several times over the past 12 months, anonymously. When he finally did identify himself, thanks to the real estate company's own deployment of Teradata Customer Journey, his trail of anonymous data combined with his new, known data created a rich profile. The connected analytics capability revealed the couple's preferred neighborhoods, home size, and price range. That ensured that messages presented to the couple showed only the properties within those parameters.

In the end, Frank and Frieda used the bank's express-mortgage program, won quick approval, and finally moved into the house they wanted, with more room to grow. The bank reinforced a customer relationship, and the real estate firm started a new one.

Telecom: Mike, Busy Professional, Stays With His Carrier

Mike is a recruitment professional with a comfortable income, and he travels constantly. His smartphone is his most important tool for staying connected with his clients. Lately, he has been frustrated with his carrier. He has had too many dropped calls.

This has made him think of switching to another carrier. He has also tweeted his dissatisfaction to his nearly 9,000 followers. He has been so intent on leaving that he ignored a recent email from his carrier.

Now that he was thinking of switching carriers, he opened the latest email from the carrier to find the chat link to the customer service department. He wanted to know if his network issues gave him a way out of his contract.

However, as soon as he got on the carrier's site, he noticed a news banner about network upgrades. He paused, but his mind was made up. In the chat session, he got straight to the point: He wanted to switch to another carrier. But the agent had a surprise for him: Did he know that network upgrades in his area would solve his problem?

Still, Mike wasn't quite sold on staying. The agent quickly offered a free upgrade to unlimited data. This caught Mike's attention. He decided to stay and take the offer. He was so happy with the customer service, he even tweeted his satisfaction to his many followers.

Under the Hood

Mike's carrier had been aware of his dropped-call issues. The company had sent an email notifying Mike and other customers of planned network upgrades in their area.

The carrier knew that Mike had ignored that email, based on click-through and email-open data. From social media data, it also knew of Mike's growing dissatisfaction—and of his large circle of social influence.

When Mike initiated a chat, the connected analytics capability used real time data to provide the best possible messaging for Mike: news about the upgrades. Connected analytics also helped de-emphasize other messaging that might seem to ignore his dissatisfaction and exacerbate his sour mood.

The solution also provided the service agent with information from Mike's sentiment analysis to along with details of his complaint. Further, just in case the network upgrade didn't persuade Mike, Teradata Customer Journey had also lined up a follow-up offer for the agent: the upgrade to unlimited data. Understanding Mike's sentiment and what he would respond to helped; Mike stayed.

Connecting data, analytics and interactions within the Teradata solution helped the carrier retain Mike as a customer, solved Mike' problem with dropped calls, and delivered a satisfying experience.

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Teradata Has Hundreds of Use Cases for Improving CX

Customer Experience Use Cases	Offer Optimization	Predicting Churn	Behavioral Segmentation	Omni-Channel Integration	Event Based Marketing
	Marketing Spend Optimization	Product Recommendations /NBO	Cross/Up Sell Targeting	Real Time Decisioning	Personalization
	Marketing Attribution	Marketing Automation	Ad-Spend Optimization	Engagement Modeling	Path to Purchase
	Business Process Improvement	Complaints Analysis	Voice of Customer	Online Search Optimization	Service Process Improvement
	Customer Satisfaction Index	IVR Optimization	Sales Compliance	User Experience & Perception	Customer Lifetime Value
	Customer Experience Issue Identification	Path to Fraud	Complaint Prediction	Network Performance & Quality	Online Fraud

Figure 3. Some of the hundreds of Teradata Customer Journey use cases. Source: Teradata.

Retail: A Busy Couple Shop for a Special Occasion

Julie and John were invited to a friend's housewarming party. Julie wanted to look festive, so she picked up her mobile phone and went straight to her favorite retailer. Dresses by a designer she likes caught her eye, but she wanted to get a better look. She went to the web to zoom in. There they looked even better, so she put three dresses into her cart.

She made a note to try them on the next time she's near the store. A few days later, while she was in the neighborhood, a text from the retailer told her that the three dresses she picked out were in stock and the fitting rooms have no lines. What's more, it said, she'd get 10 percent off if she bought that day.

She had a few minutes, so she made a run for it. The clerk had her dresses ready at the dressing room, so she went right in. The clerk also offered her some matching accessories. Julie was pleased with the service and bought both the dress and the accessories using the discount. She was now ready for the party.

Under the Hood
The retailer had built a rich profile of Julie by weaving together data from a wide variety of sources. It captured her real-time digital interaction data from web and mobile, including her anonymous activity data from public sites and combined it with her past behavior data from offline channels.

Using advanced analytics in Teradata Customer Journey, the retailer understood Julie's needs and could predict her reactions. There was no need for alarm, it knew, about her abandoned cart. Behavioral modeling showed that shoppers like Julie usually don't buy personal items online So instead of quickly offering her a discount, possibly foregoing some of the store's margin, the retailer waited.

Real-time GPS data informed Teradata Customer Journey that Julie was within a minute's walk of a store, which triggered a message. Simultaneously, the connected interactions capability also alerted the sales clerk to expect her.

Behavioral modeling had also shown the retailer that people like Julie often buy accessories with clothing. The product recommendation capability from Teradata helped the sales clerk to offer accessories based on Julie's past choices.

In the end, Julie was pleased with the seamless experience the retailer provided. She looked great in her new outfit, and she recommended the retailer to her friends at the party.

Applications as Varied as Customers and Products

While these three case studies illustrate the impressive capabilities of Teradata Customer Journey, they actually present just a tiny set of use cases. Actual client uses are

far more varied. Figure 3 lists some of the many ways that organizations have applied Teradata Customer Journey.

Conclusion: Bold New Capabilities

Most new products offered by data analytics vendors fail to offer a clear answer to the most important question of all: What can I do with this application that I can't do otherwise? Usually, the answer is some form of "what you've always been doing, just faster and better." Teradata Customer Journey is one of the few that helps even the largest organizations achieve a step change in how they improve and manage customer experience:

- Marketers can now observe and understand customers across their journey—whether online or offline.

- Organizations can gain new, deeper insights about each customer's tastes, habits, and inclinations with sophisticated analytic techniques.

- Marketers now get more than just a real-time view of their customers' journey. With automated tools, they now stand ready for moments when progress stalls to step in with relevant offers and messages in real time.

- Even organizations that service tens of millions of customers can provide customers a personalized and relevant experience in real time.

- Teradata consultants provide marketing and analytic expertise to ensure technology adoption and speed to market.

One thing seems sure: Technology that connects data, analytics and interactions cultivates better relationships between the organization and its customers.

About the Author, Ted Cuzzillo

Ted is an industry analyst by function and a journalist by trade. He believes that the social and organizational aspects of a "data driven" business are at least as important as the technological aspects. Since 2007, Ted has been a regular contributor to several industry BI publications, including Information Management and TDWI publications, in addition to his own weblog, Datadoodle. Datadoodle, he says, "wanders out on the far end of the many faces of the data industry, where technology fits over the tender and irregular human profile. Content there is strictly free-range..." There, he provides original reporting and analysis on the many topics that interest him.

Before BI, Ted wrote about telecommunications and computer networking. Far in the past, he wrote and edited explanations of technical topics for members of environmental organizations. His career took an eclectic, non-traditional route, which he believes gives him a much wider perspective today than the conventional route would have. Before settling down to journalism, Ted wandered through a variety of colorful jobs, such as Amtrak train attendant, selling commodity options by phone, and a stint in radio at KSKA, "Anchorage public radio." Ted has a bachelor's in journalism from San Francisco State University and an MBA from Dominican University of San Rafael (California).

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