IBM Tealeaf CX solutions

Technical overview



IBM

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Introduction

What is Customer Experience Management?

IBM[®] Tealeaf solutions provide the visibility, insight and answers organizations require to verify websites are consistently delivering a positive and, ultimately, successful experience for their customers—this is Customer Experience Management (CEM).

Using groundbreaking, patented technology, IBM Tealeaf solutions capture and record what each customer is doing and seeing in real time on each page and across site visits—right down to the page-by-page, browser level experience. By capturing each customer's visit, as well as the reaction of the site in response to the customer's requests, IBM Tealeaf solutions uniquely capture both the quantitative and qualitative details of each interaction.

IBM Tealeaf solutions' rich customer experience dataset can then be used across the organization — from e-business and IT, to customer service and compliance — to explore site improvement and innovation opportunities, drive requirements and set priorities. By offing a shared 'view' of the online customer, IBM Tealeaf solutions enable organizations to understand how to deliver better online solutions and provide more effective online service for their customers.

IBM Tealeaf CX

A robust information source about the online customer experience

Tealeaf CX is one of the industry's most robust datastores of online customer information and the engine behind all IBM Tealeaf products. By uniquely capturing and managing each visitor interaction on your website, Tealeaf CX delivers distinctive visibility into online customer experience. The following products are powered by Tealeaf CX:

- **IBM® Tealeaf® cxImpact** provides industry-leading insight into why customers succeed or fail on your site.
- **IBM® Tealeaf® cxView** gives you visibility into key performance indicators so you can proactively manage your e-business.
- **IBM® Tealeaf® cxOverstat** presents intuitive visualizations such as heat maps, attention maps, link and form analytics to extend user understanding.
- **IBM Tealeaf cxLifecycle** integrates quantitative, qualitative and behavioral data to derive customer experience insights and reduce conversion struggles across multiple buying cycles.

- **IBM® Tealeaf® cxReveal** provides customer insight for improved and effective customer service.
- **Tealeaf cxVerify** preserves selective sessions within a document management system of online customer interactions for dispute resolution, fraud investigations, as well as audit and compliance requirements.
- **IBM® Tealeaf® CX Mobile** enables you to apply the power of our industry-leading CEM solution to your mobile channel such as the mobile web, native and hybrid apps and HTML5.
- **IBM® Tealeaf® cxConnect** brings smooth integration with web analytics, voice of customer, data analysis such as business intelligence, and other business applications.



Figure 1: IBM Tealeaf CEM solutions

How IBM Tealeaf solutions work

The Tealeaf CX platform captures each customer interaction with your website — what customers are doing and seeing on each page, across an entire visitor session. Customer interaction data is indexed and processed to enable previously unattainable insight into your customers' online experience. The solution includes a unique event model which allows you to track and measure the processes and metrics that are important to the success of your e-business. The Tealeaf CX platform is flexible enough to fit into virtually any web-based application environment and has been time-tested on the some of the largest, most sophisticated, and mission-critical sites on the web.

Tealeaf CX

IBM Tealeaf CX provides a non-intrusive, real-time method to capture what each customer is doing and seeing on each page across an entire visitor session. To do this, the IBM Tealeaf CX passively records the HTTP (S) request and response data by "sniffing" TCP/IP packets from the network via an existing span port or network tap. Example types of captured data include HTTP headers, URLs, URL form fields (both get and post), URL Referrers, user login names, cookies, server host names, application, client IPs, page sizes, the HTML source code of the page returned to the customer and other diagnostics included in the HTTP(S) interaction between the customer's



Figure 2: IBM Tealeaf CX architecture

web browser and the web application. In addition, the capture process records the total round trip, Internet delivery, and page generation times for each page requested in the session, page cancellations, and the connection-type experienced by the customer (e.g., T1, DSL, or dial-up) as measured by the page delivery rate.

IBM Tealeaf CX broadens online visibility by capturing in-page interactions and client-side functions executed by Rich Internet Application (RIA) technologies, such as AJAX, Flash and Flex. IBM Tealeaf CX allows you to optimize form pages, in-page layouts, as well as client-side functionality to deliver the best possible customer experience. For example, types of captured data include form field abandonment, form-field validation messages, client-side JavaScript errors, end-to-end response time, scrolling and mouse movements.

With IBM Tealeaf CX, you not only have breakthrough visibility into the online experiences across a visitor session, you also have robust insight into the customer behaviors that occur solely within the web browser itself.

Real-time data processing

The Tealeaf CX platform processes, organizes, analyzes, indexes and archives recorded data. Data received is streamed through a process that performs specific filtering and manipulation functions to normalize and secure the data. After data is normalized, it is indexed, archived and made available for further access and analysis by other IBM Tealeaf solutions.

Real-time, event-based detection

Captured data is analyzed in real-time against a set of userdefined rules to provide insight into business process health, customer activity, application errors, page errors and response time problems. Events can be defined against the occurrence or absence of a single value, text pattern, page attribute, session attribute, compound conditions appearing in a page, or as a function of multiple conditions in a business process.

Examples of business events include:

- **Business process**: each step in a business process, or a customer completing a multi-step business process
- Business process abandonment: a customer that starts a multi-step business process, but does not complete the process
- **Business process failure**: a customer that is prevented from completing a multi-step business process due to an application error, response time, or application logic issue
- **Customer activity**: a customer attempting to login, successfully login, or failing to login
- **Product, feature and service tracking**: a product, feature, or service selected by a customer

Examples of technical events include:

- Application error: an error exception message (e.g., Java exception) or global error page
- **Page error**: HTTP 500, HTTP 40x, blank page, or page weight too great (size > 40KB)
- **Application response**: any page taking longer than 10 seconds to load, or a specific business process page (confirmation.jsp) taking greater than five seconds to load

Events do not require application code changes or programming skills to create and maintain. To help you get started quickly, Tealeaf CX includes a set of out-of-the-box events.

Reliable and security-rich architecture

Flexible, scalable platform

The IBM Tealeaf CX platform can be scaled based on traffic volumes, data archiving and end-user volume requirements. Its distributed architecture enables optimal utilization of available system resources to be responsive even when processing large data volumes. It can be scaled horizontally to meet future site traffic growth requirements while still providing a single, unified view via of the captured data. It is also designed to exploit existing capabilities—data back-up and storage—so companies can integrate the IBM Tealeaf CX platform into their current practices without having to adopt new procedures.

Security and privacy

The IBM Tealeaf CX platform satisfies rigorous requirements for security and privacy and is used with confidence by many Fortune 500 companies, major banks, and government agencies. Captured information that appears in the HTTP(S) request or response—passwords, Social Security numbers (SSN), or account numbers—can be kept, destroyed entirely, or encrypted as soon as it enters the Tealeaf CX system. Encrypted information appears as if it were destroyed unless the user viewing the session is authenticated on the basis of role, and thereby authorized to view that specific information. In addition, captured data is stored in an encrypted format to help eliminate unauthorized data access. To meet security compliance requirements, the Tealeaf CX platform maintains a detailed audit trail of data access and system changes.

Intelligent data management and flexible archiving

The Tealeaf CX platform provides flexible data management and archiving so you can archive data for extended periods of time for problem resolution customer behavior analysis, dispute resolution, and other web archiving needs. Tealeaf CX intelligently determines which sessions are of interest and should be archived based on user-defined data management rules. For example, you can archive customer sessions that include a certain class of errors or business events, a random sampling, or 100 percent of sessions captured. Sessions not marked for archiving are discarded. Before the selected sessions are archived, the data is compressed to significantly reduce data storage requirements.

Customer Behavior Analysis Suite

Improving online customer experience is a top priority for many organizations, and our Customer Behavior Analysis Suite was created with this goal in mind. By utilizing Tealeaf cxImpact, Tealeaf cxView and Tealeaf cxOverstat in concert, companies have both the quantitative data, as well as the qualitative experience information necessary to understand customers' true experience—information that is foundational to conducting customer behavior analysis.

Regardless of how you become aware of potential customer experience issues, customer behavior analysis is how you answer the why questions about the website: Why do more customers abandon the credit card application on the second step rather than the first step? Why are customers searching for products multiple times and still not adding items to the shopping cart? With the visual evidence IBM Tealeaf solutions provide, you have the full context to analyze customer behavior and understand why a given user did or did not complete a process successfully on your site. Armed with this information, you are empowered to take the necessary actions to optimize your website.

Tealeaf cxImpact

Tealeaf cxImpact gives you the tools to proactively manage your e-business and provide the highest-quality customer experience. With rapid visibility into your online customers and the hidden problems impacting your business, you can detect, quantify, and quickly resolve issues that your online customers encounter.

Tealeaf cxImpact transforms the rich customer experience dataset captured by Tealeaf CX into visually replayable and searchable customer sessions. Tealeaf cxImpact not only captures the page-by-page, browser level recording of each customer session, but also offers one-click access to the supporting HTML request and response information for further technical analysis.

Visual replay

Tealeaf cxImpact features a patented viewer, either a desktop application or universal browser, that replays page-by-page, browser-level recordings of customer sessions on your site. Tealeaf cxImpact allows you to see each action (e.g., link selections), interaction (e.g., form field inputs) and customer experience obstacle (e.g., error messages) so you can quickly reproduce and resolve site issues. Tealeaf cxImpact now supports the capture and replay of web 2.0 technologies.

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Figure 3: Tealeaf cxImpact allows you to replay customer visits and highlights what the customer did on your website.

Search

The robust search capability of IBM Tealeaf solutions lets you quickly find and retrieve specific customer sessions by searching on HTTP parameters (e.g., URL form field values) or free-text strings (e.g., "database connection lost" messages appearing in the HTTPS response), or events observed by Tealeaf CX (e.g., bill pay abandonment). You can construct simple or complex queries, search against captured sessions, use search operators and Booleans, or search using wild cards.

Issue quantification

If someone calls to report a problem on your website, how will you know if that issue is affecting one—or one thousand—customers? The resulting session list from any given IBM Tealeaf solution search is one way to quickly size an issue. Furthermore, powerful drill-down reports provide you with actionable information regarding how severe the problem is and which users were affected.

Real-time events and alerts

Captured data is analyzed in real-time, at minute level intervals, against a set of user-defined rules—events—to provide rapid awareness and insight into business process health, customer activity, application errors, page errors, and response time problems. Alerts can then be triggered when thresholds or ratios of events are exceeded. These real-time events can be based on the occurrence or absence of a single value, text pattern, page attribute, session attribute, compound conditions appearing in a page, or as a function of multiple conditions in a business process. From alerts, you can quickly drill-down to the exact users affected and replay their sessions if desired. For example, many customers use IBM Tealeaf solutions to monitor high-level business metrics, such as abandonment, to alert analysts to unforeseen technical or business issues.



Figure 4: With IBM Tealeaf cxImpact, quickly determine the magnitude of an issue. In this example, 4,598 people were affected.

Figure 5: Tealeaf cxImpact allows you to set alerts for proactive management of your website.

Reports gallery

Tealeaf cxImpact includes a robust reports gallery which includes packaged reports such as user activity, event, bot traffic, mobile traffic and performance reports, among others. Tealeaf cxImpact reports automatically aggregate data collected across site visitors in order to provide a holistic view of the experience your website is presenting customers.

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alear CC		PRE	\$2,207	Average Request Size:	2.75
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port	Overall Astrony 🕑	Non-pages CplC Jamph	1.525	Total Response Dize:	\$67,221
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	Secon Avg Nos Secon Avg Sco	May Session Duration:	19.90 min	Response Time Errorat	167
	Traffic (HS)	Session Processing			
	Round Trip Retrack Trip	Interesting Dessions:	2,827	Rendomly Selected Sessional	2,927
	Cancelled Pages	Completed Dessions:	2,827	Deleted Developer	0

 $Figure \ 6:$ Packaged reports in Tealeaf cxImpact provide an aggregate view of the experience your website presents.

Centralized workspace

Tealeaf cxImpact provides a real-time, web-based portal that serves as a centralized workspace for website problem identification and resolution.

Tealeaf cxView

Tealeaf cxView gives you the perspective to proactively manage your online channel and understand why customers complete or abandon online processes. By providing real-time awareness to key business performance indicators, as well as the ability to drill-down from these metrics to understand the causes of business-process abandonment, Tealeaf cxView exposes the cost of customer experience obstacles to your business. With this insight, you can optimize your site to improve the experience and increase customer success rates. Tealeaf cxView aggregates the rich, customer experience dataset of Tealeaf cxImpact into executive-level dashboards, scorecards and reports.

Dashboards

Dashboards are customizable and configurable, enabling a personalized reporting framework for IBM Tealeaf cxImpact data. Any IBM Tealeaf cxImpact report accessible in Tealeaf cxImpact can be added to a dashboard. By tracking these metrics in real time, you can quickly spot trends that require further investigation or analysis.



Figure 7: A KPI dashboard report

Scorecards

Scorecards enable you to track the health of key functional areas of your site. There are two types of scorecards:

- **Business Process Scorecards** automatically measure and score overall success, abandonment, and failure rates across and within each step of a critical online business process against defined goals.
- Key Performance Indicator (KPI) Scorecards automatically measure and score the health of online business services based on customers' actual experiences.

Community-based templates

IBM Tealeaf solutions provide packaged dashboard, report and event templates, which leverage common visitor experience data, enabling more advanced usage of IBM Tealeaf solutions and accelerated time-to-value of CEM best practices. Templates are saved on our community site, via the IBM Tealeaf solution, for customers to access, share and exchange, and include documentation and detailed instructions for how to customize templates for your business.



Figure 8: The generic business process scorecard can be customized to monitor key site processes on your site.

Scenario impact analysis

For virtually any business process, you can test hypotheses to determine which customer experience issues cause conversion rates to go up or down. For example, you can test the impact of a usability issue or a technical error on your overall conversion rate, customer completions, or even revenue. Armed with business impact metrics, you can appropriately prioritize website issues for remediation.



 $Figure \ 9:$ Conduct scenario impact analysis to understand which issues have the greatest impact.

Configuration of Tealeaf cxView does not require custom development or custom queries. Configuration steps are administered through an intuitive web interface. In addition to an interactive web interface, reports can be distributed via e-mail summary reports that can be delivered to specified recipients on a daily, weekly and monthly basis. HTML e-mail summaries also include a link back to the live reports to enable quick click-through for deeper analysis.

Tealeaf cxOverstat

Tealeaf cxOverstat integrates with our industry-leading CEM solution to allow companies identify struggle hot spots, correlate with Voice of the Customer feedback and tracking CEM KPIs. Beyond seeing hot spots and tracking KPIs, companies can utilize context to make usability analytics actionable and create highly visual analysis for highly interactive sites.

Usability analytics

With Tealeaf cxOverstat, you can better understand the behavior of individual customers from usability reports and get insight into why some customers behave differently. Tealeaf cxOverstat's ability to filter reports by custom dimensions allows you to see the differences in behavior for different segments of users. You can understand why one segment of customers behaves differently by customizing dimensions and drill down capability.

Highly visual analysis for highly interactive sites

The features in Tealeaf cxOverstat allow you to analyze Rich Internet Application (RIA) technologies such as JavaScript, AJAX, which is used by today's highly interactive websites.

Feature highlights

- **Click heat maps**—Discover where your visitors click on a page including forms, links, images, and text so you can optimize the placement of key content to enhance your visitor's experience and to allow them to quickly complete their desired action.
- **Comparison Analytics**—Provide a side-by-side segmented view and usability metrics to better analyze customer behavior.
- Form field analytics—Optimize each form increasing conversion rates and understand how page and form conversion rates compare. In addition, evaluate how long each field takes to complete and which fields are completed most often.
- Link analytics—Improve conversion and engagement by identifying links that are clicked on more often. See how relative link placement can affect your online goals.
- Attention map—Observe where your users are spending most of their time for a given page, not just how far they scrolled a page. Optimize engagement by changing the placement of more desired content.
- Dynamic page support and browser-based replay — Tealeaf cxOverstat allows you to see usability analytics for dynamic sites that use JavaScript and AJAX to provide views or pages that change depending on variables such as user action, time or device (i.e., mobile, desktop etc.). You can also replay actual user sessions throughout the process, regardless of user or time.

Highly visual segmentation and ability to drill down to understand why

See the differences in behavior for different segments of users. Segmentation analysis allows you to define segments based on a user's experience and then overlay Tealeaf cxOverstat reports over that customer segment to understand why a segment of users behave a certain way.

Goal-based Dimensions enable reporting to be segmented based on factors that occur after the actual event occurrence. For example, show the top five clicked-links that users who actually completed shopping cart had clicked.

Gain insight into why some customers behave differently by drilling down from usability reports to see the behavior of an individual customer. Understand why one segment of customers behaves differently by comparing the behaviors of individual customers in different segments.



Figure 10: Click heat maps let you discover where your visitors click on a page.



 $Figure \ 11:$ Form field analytics help you understand how well users complete online forms.

Tealeaf cxLifecycle

IBM® Tealeaf® cxLifecycle integrates quantitative, qualitative and behavioral data to derive customer experience insights and reduce conversion struggles across multiple buying cycles. The software delivers IBM Digital Analytics lifecycle analytics, ad-hoc analytics and conversion analytics capabilities to Tealeaf cxImpact software (for session replay and search).

Users can share session information between Tealeaf cxImpact and cxLifecycle with one click, and analyze customer conversion events as well as business impact. Tealeaf cxLifecyle helps your organization:

- 1. Shorten digital sales cycles by influencing customer progression through macro and micro conversion cycles
- 2. Perform ad-hoc analysis of successful and unsuccessful conversion events
- 3. Quantify business impact of customer conversion struggles across multiple devices by analyzing multiple sessions
- 4. Access cloud-based reporting for faster visitor-level analysis of Tealeaf sessions
- 5. Understand the impact of marketing campaigns on single and multiple buying cycles

Tealeaf cxReveal

In the online world today, where competitors are just a click away, companies must differentiate through superior customer service. In order to provide your customers with valuable assistance in support of their online activities, we offer a Customer Service Optimization Suite, which includes Tealeaf cxReveal.

Customer service optimization is about bridging the divide between contact centers and the day-to-day operations of the website, so representatives are fully equipped to respond effectively to the needs of the online customer. With the visual evidence IBM Tealeaf solutions provide, agents have the full context to understand why a given user did or did not complete a process successfully on the site. Call center agents are empowered to effectively serve their customers and increase first call resolution rates, reduce costly escalations and improve customer retention. Call centers can proactively provide feedback to the broader teams within an organization about a given issue from a digital channel so that IT, ebusiness or Marketing teams can quickly resolve the issue to reduce the number of affected customers. Now, the web and call center teams can successfully work together to increase sales revenue opportunity, optimize customer experience, and improve customer loyalty.

Tealeaf cxReveal takes the core functionality of Tealeaf cxImpact—session replay and search—and packages it into a simple user interface for efficient use by customer service representatives. Using one-click retrieval, agents have fast access to both live and previous customer sessions from existing CRM solutions, support portals or custom agent desktops. CSRs, as well as the e-business team and even the sales and marketing teams, now have more context regarding the customers' actual website experiences. This increased context helps to generate more informed service and improve customer acquisition, increase up-sell or cross-sell effectiveness, power order recovery efforts and, as a result, improve customer satisfaction and retention.

Customized search integrated with CRM consoles

Tealeaf cxReveal provides customizable search options that can be directly integrated into an existing CRM console (e.g., Sugar CRM, Genesys, or custom web-based customer support interface). For example, from a customer record in the CRM interface, the customer service representative can click on a link and retrieve each website session generated by that specific customer over the last seven days.



Figure 12: Tealeaf cxReveal Integrates with CRM systems for smooth retrieval of customer sessions.

CRM integration is enabled by a web service that is configured to handle specific attributes of the query request. For example, Tealeaf cxReveal can be configured to submit preloaded queries that include a set of predefined parameters—for ultimate control. Or, it can be configured to give the customer service representative setting options, such as selecting different date ranges from a drop-down menu.



Figure 13: New session history report

Session history

Tealeaf cxReveal integrates a session history report directly into your CRM console allowing CSRs to jump right from an open case into a customer's session history list without having to conduct a search. Preconfigured Summary Reports provide a quick glance into the customer's common site activities. For example, the CSR can quickly see what product categories the customer typically visits or what site capabilities the customer has used during past interactions.

Customer coaching and session annotation

CSRs can watch over a live customer session, and receive automatic notifications from Tealeaf cxReveal as new pages are accessed by the customer. CSRs can quickly guide the customer to complete a transaction. Our annotation capability also allows Tealeaf cxReveal users to add commentary to sessions utilizing pre-configured categories such as site issues or user confusion, etc., or with free text. Annotations can then be searched, reported, and analyzed.

CSR dashboards and reporting

Tealeaf cxReveal provides the ability to create activity dashboards and reporting, which is essential for customer service management to assess (determine training needs) and measure CSR usage (search effectiveness, search efficiency, etc.) of IBM Tealeaf solutions.



Figure 14: Shadow browse live customer sessions in real-time



Figure 15: Within Tealeaf cxReveal itself, create CSR activity dashboards and reports

Security and privacy of customer information

Queries submitted by Tealeaf cxReveal can be authenticated using Windows Authentication. As a result, each query is controlled through the same centralized security gateway used by the Tealeaf CX system. This protection helps to prevent customer service representatives from gaining access to unauthorized sessions. Additionally, because Tealeaf cxReveal leverages the security and privacy features of the Tealeaf CX datastore, private personal information (SSNs, credit cards, etc.) is masked or hidden.

Tealeaf cxVerify

Record-keeping is an essential part of any business. Brokerages record every telephone transaction. Merchants save records of every in-store purchase. All kinds of businesses keep countless stacks of records about their customers. Online businesses, too, need reliable records of customer interactions for dispute resolution, fraud investigations, and audit and compliance purposes. Until now, there has been no practical way to provide a complete and accurate snapshot of an entire customer session on your web site.

IBM Tealeaf cxVerify solves this problem by preserving a complete and permanent record of virtually all customer online interactions and transactions with your web site within a document management system. It offers a flexible way to retrieve and replay complete customer sessions—exactly what customers viewed in their web browsers and the specific actions they took on each page—even if they took place months or years ago. With this essential documentation, your company can effectively resolve customer disputes, efficiently conduct fraud investigations, and streamline audit and compliance efforts. IBM Tealeaf cxVerify gives you full control over your online costumer interaction record-keeping process. For example, you can archive only the sessions in which a purchase, trade, or quote was made. After defining which sessions to archive, you can then choose exactly when or how frequently to archive these sessions by exporting them into your own document management system.

Archiving within a document management system

IBM Tealeaf cxVerify includes a Windows-based utility that extracts selected sessions from the IBM Tealeaf CX datastore. The browser-level session replay, along with critical metadata including the customer ID, date and time, and specific events related to that sessions, are then written to a tamper proof PDF file, which can be digitally signed for non-repudiation. PDF files are then archived within your document management system in order to preserve your retention and access-control policies. Once a customer record is pulled for discovery and review, a user simply clicks a link within the PDF to launch the embedded session for replay of the full customer experience

Tealeaf CX Mobile

Consumers now have the ability to conduct transactions on the go with the rapid adoption of mobile and tablet devices. To succeed in this new business channel, you must deliver mobile services and features that your customers can easily access and use productively. Most e-businesses today have a limited understanding of how their customers are engaging with them on mobile channels.

Given the magnitude of mobile variables—including the abundance of devices and browsers—the risk of customers encountering obstacles is inherently greater. Some of these issues are technical, but many of the things that cause customers to struggle are related to business process and usability, making them harder to detect, diagnose and resolve effectively. Tealeaf CX Mobile enables you to apply the power of industryleading IBM Tealeaf CEM solutions to your mobile channel. It gives you the visibility where you do not have it today; helping you deliver winning mobile services for the mobile web, native apps or hybrid apps. Also, as the mobile channel continues to grow and HTML 5 and hybrid apps become common, we will be there to support you.

Key benefits

- Make the right mobile investment decisions—fix, invest or remove features and services
- Accelerate the time-to-market for delivering winning mobile services
- Raise conversion/acquisition rates and revenues by detecting obstacles and issues that cause users to struggle

Feature highlights

- Mobile web, hybrid app and native app support for iOS and Android. When integrated with the desktop website, lets companies optimize their online channel for key users no matter how they contact them
- **Robust mobile visibility** by capturing user information across mobile websites, including both network and client-side interactions
- Early warning system to detect mobile user struggle and provide proactive awareness into mobile application failures, usability issues or other obstacles that lead to failed transactions, abandonment and negative feedback
- Enhanced mobile web session replay to understand 'why' by viewing what customers saw on their mobile devices and the specific actions they took—including device rotation, scroll, swipe and other touch-screen actions
- **Real-time drag-and-drop analysis** to quantify revenue impact and segmentation by specific mobile user behaviors or device attributes
- **Powerful ad-hoc discovery and segmentation** to quickly find and isolate problems across mobile customer sessions—for both individual customers and aggregates—without pre-defining tags or beacons



Figure 16: Tealeaf CX Mobile allows you to see each step the customer does on your website

Tealeaf cxConnect solution family

The Tealeaf cxConnect product line provides smooth integrations with other business applications including business intelligence, web analytics and voice of customer. An industryleading solution capable of capturing virtually all data on online customers, this rich customer experience dataset is critical to successful omni-channel analysis and website optimization.

The Tealeaf cxConnect family includes four distinct products: IBM Tealeaf cxConnect for Web Analytics, IBM Tealeaf cxConnect for Voice of Customer, and our base data integration product, IBM Tealeaf cxConnect for Data Analysis.

Tealeaf cxConnect for Web Analytics

Tealeaf cxConnect for Web Analytics allows you to smoothly integrate the IBM Tealeaf solution's rich customer experience dataset with virtually any web analytics application to help uncover trends or anomalies such as a difference in conversion rates between two time periods or customer segments.

When integrated with other IBM Tealeaf solutions, web analysts can see the actual customers behind these trends in order to investigate why each individual customer is either succeeding or failing online.

How it works

From your web analytics product you will define a segment based on a measure, for example, customers abandoning your purchase process. A web analytics report which identifies the visits in this defined segment can then be delivered to your Tealeaf CX server. Tealeaf cxConnect for Web Analytics will then automatically import this report and create a corresponding session segment report. From this session segment you will then be able to visually replay and analyze the full customer experience for each customer in this segment.

Tealeaf cxConnect for Voice of Customer

Tealeaf cxConnect for Voice of Customer allows you to smoothly integrate the IBM Tealeaf solution's rich customer experience dataset with virtually any voice of customer (VOC) application.

Businesses use VOC technologies to understand the perspectives of and gather feedback from their online customers. When trying to uncover why customers are providing specific feedback, companies are able to utilize the integration with other IBM Tealeaf solutions to review the actual experience of the individual users who provided feedback. This visibility provides full context around the user's experience and their feedback to help ensure that businesses can effectively refine efforts.

How it works

When customers initiate direct feedback from your site, information uniquely identifying each customer is sent to your VOC provider. As the customers continue their feedback processes in your VOC provider's environment, their information is sent back to your web infrastructure, via Tealeaf cxConnect for Voice of Customer, where it is automatically captured in Tealeaf CX. During VOC feedback analysis, you can then gain full customer experience context through a Tealeaf cxConnect replay link integrated directly into your feedback summary reports. Additionally, once captured in Tealeaf CX, VOC information can be leveraged by other IBM Tealeaf solutions for further customer experience analysis.

Tealeaf cxConnect for Data Analysis

Tealeaf cxConnect for Data Analysis allows you to smoothly integrate the IBM Tealeaf solution's customer experience dataset with virtually any business intelligence application to create an omni-channel view of the customer for ongoing analysis.

By bringing information regarding your online customers into your enterprise business intelligence environment, business analysts are empowered to conduct a wide range of data analysis, from omni-channel effectiveness to fraud detection.

How it works

Tealeaf cxConnect for Data Analysis is an application that enables the transfer of data from your Tealeaf CX datastore to external reporting environments. Tealeaf cxConnect for Data Analysis can deliver data in real time to external systems, such as event processing systems, or enable that data to be retrieved in a batch mode. Extraction of customer interaction data into log files, SAS, Microsoft SQL Server or Oracle database is supported. Data extraction jobs can be run on a scheduled or ad-hoc basis. Flexible filters and controls can be used to include or exclude sessions or parts of sessions, according to your business reporting needs.

About IBM ExperienceOne

IBM ExperienceOne helps you attract, delight and grow the loyalty of customers by enriching the ways you engage each of them. IBM ExperienceOne provides a set of integrated customer engagement solutions that empower marketing, merchandising, commerce and customer service teams to identify the customers and moments that matter most, and to rapidly apply those insights to develop and deliver personally rewarding brand experiences.

IBM ExperienceOne ignites innovation by leveraging patterns of success from more than 8,000 client engagements, original industry research, and products consistently recognized as industry leaders in major analyst reports.

IBM ExperienceOne solutions are delivered in cloud, on premises, and in hybrid options.

For more information

To learn more about IBM ExperienceOne, please contact your IBM marketing representative or IBM Business Partner, or visit the following website: ibm.com/experienceone.



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