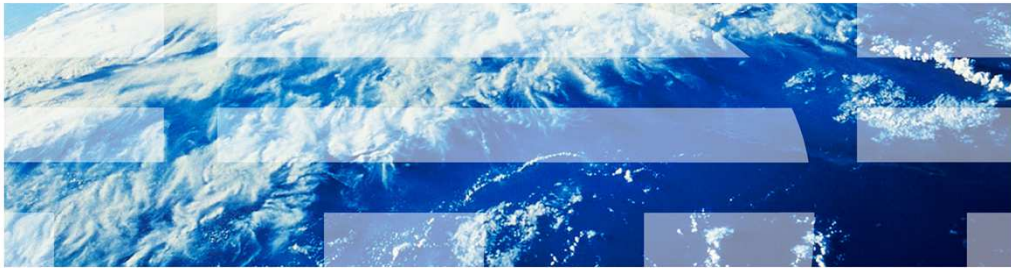


WebSphere Commerce V7 Feature Pack 6

IBM Tealeaf Customer Experience integration



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This presentation provides an overview of the Tealeaf Customer Experience integration in Version 7 Feature Pack 6. You should have a general knowledge of the features in WebSphere® Commerce Version 7 before viewing this presentation.

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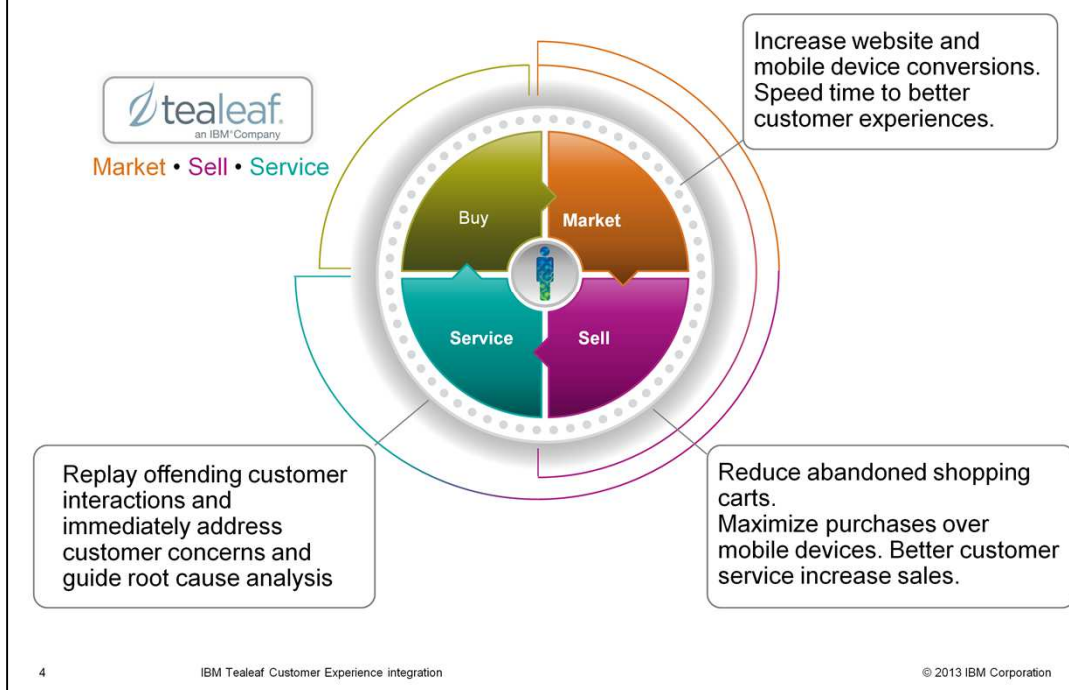
- Overview
- Adoption details
- Troubleshooting

This presentation begins with an overview of the Tealeaf Customer Experience integration. Next, a summary of the details for adopting the integration is provided. The presentation concludes with some troubleshooting tips.

Overview

This section provides an overview of the Tealeaf Customer Experience integration.

Tealeaf enhances the commerce cycle



Integration with IBM Tealeaf has been added to the Aurora store in Feature Pack 6. Tealeaf is a customer experience management solution that enhances the market, sell and service components of the commerce cycle. By helping to locate and isolate the root cause of negative experiences faced by customers, Tealeaf allows you to quickly address problems. Improved customer experience leads to better conversion rates and fewer abandoned shopping carts.

Quantitative versus qualitative analytics

Quantitative digital analytics ("What, Where, and How")



IBM Coremetrics® Digital Analytics provides quantitative insight by capturing website and mobile interaction data and providing easy to use interfaces showing:

- Purchase funnels
- Real time sales data
- Traffic flow through site
- Conversion benchmarks

Qualitative digital analytics ("Why")



Tealeaf provides qualitative insight by capturing, replaying, and analyzing individual user interaction data showing:

- "In page" content (including dynamic personalized experiences)
- All UI interactions
- Error messages displayed
- Identify impacted visitors

Tealeaf provides qualitative rather than quantitative analytics. Quantitative solutions, such as Coremetrics, enable you to segment the behavior of shoppers to uncover hidden issues or opportunities. For example, a drop in the conversion rates on shopping carts. Qualitative solutions, such as Tealeaf, allow you drill into specific shopper sessions to understand the shopper experience and what might be causing them to abandon their carts at that point.

Where Tealeaf helps

- Organizations use Tealeaf to help optimize the entire customer experience including the mobile channel, specifically:
 - Provides visibility into the actual customer experience
 - Allows you to quickly diagnose and resolve site obstacles
 - Affords the ability to quantify the business impact of any given issue for more effective prioritization
 - Provides real-time Customer Experience analytics to engage discovery and website optimization efforts
 - Seamlessly integrates with Sales and Support systems to make online customer service more effective
 - Improves online self service capabilities reducing calls handled by (more expensive) call centers

Tealeaf helps organizations optimize their customer experience across multiple digital channels including desktop and mobile applications. Integrating Tealeaf with your WebSphere Commerce store provides visibility into actual shopper experiences and helps you quickly diagnose and resolve obstacles in your store flow. Using the diagnostic tools provided, you can quantify the business impact of issues to help prioritize fixes. Real-time analytics assist in website optimization efforts and integration with Sales and Support systems can improve online customer service. Tealeaf can also reduce the number of customer services calls by improving online self service capabilities. The references page at the end of this presentation contains a link to more information on Tealeaf.

Integration highlights

- Integration added to the Aurora desktop store to demonstrate Tealeaf capabilities
 - Guest user checkout
 - Registered user checkout
- Not included
 - Non-checkout pages in the Aurora desktop store
 - Aurora mobile web store
- Enabled through the Analytics tab in Store Management tool
- Supported version
 - IBM Tealeaf Customer Experience V8.7

In Feature Pack 6, Tealeaf data capture has been enabled for the registered and guest user checkout flows in the Aurora desktop store. Non-checkout pages and the Aurora mobile web store are not preconfigured for Tealeaf data capture as part of this release. The data capture can be enabled through a new feature check box on the Analytics tab in the Store Management tool. The Aurora integration is for demonstration purposes; you will need to engage with the Tealeaf services team to enable your own store even if it is based off Aurora. The supported version of Tealeaf Customer Experience for this integration is shown on the slide.

Data capture methods

- Tealeaf Passive Capture Application (PCA)
 - Capture transitions between pages
- Tealeaf UI Capture j2 (UIC)
 - Capture state of web pages and JavaScript interactions
 - Data from the browser is transferred to the Tealeaf capture server
 - TealeafTarget.jsp
 - Client-side capture JavaScript library is provided by Tealeaf, not shipped with Aurora
- Note: Data is not captured in store preview mode

Tealeaf uses two methods of data capture to capture shopper interactions with your website. The Passive Capture Application (PCA) can capture and replay the website with no modification to the site itself. However, all JavaScript and Ajax interactions remain local to the web page. Since they are not transmitted to the website, they are not captured by PCA. Adding Tealeaf UI Capture (UIC) JavaScript to the store pages captures the state of each web page and its JavaScript interactions. Other information only available in the page such as page load times, the resolution of the screen display, and other pre-defined attributes can also be captured. UI Capture works by sending data from the shopper's browser to a target JSP on the Tealeaf capture server. In the Aurora store, the checkout pages have been updated to make use of the UI Capture JavaScript library. The library itself is provided by Tealeaf, not shipped with WebSphere Commerce.

UI capture in the Aurora store

- Configure the UIC j2 JavaScript library (Tealeaf.js)
 - End point to send data to
 - Privacy masking rules
 - Configuration is part wizard-based, part manual
- Add Tealeaf.js to each Aurora store page that requires capture
 - Already done for the checkout flows
- WebSphere Commerce helper library available to capture special case events
 - DOM events that cannot be recorded because they are blocked by the browser
 - Ajax requests that require the DOM tree to dynamically rescan

The first step to enabling Tealeaf for your Aurora-based store is to engage with the Tealeaf services team to have Tealeaf installed. Tealeaf will provide a copy of the UI Capture library which requires configuration before the final JavaScript library is ready to use. There is a wizard to assist with the configuration, such as for setting the end point to send captured data to. Other configuration is done manually, such as defining regular expressions for privacy masking rules. These rules specify data that should not be captured, such as credit card numbers.

Once the Tealeaf JavaScript file is configured for your store, it needs to be added to each Aurora store page that you want to capture. This work has already been done for the checkout flow. In addition to including this file on each page you want to capture, there are some special cases where events need to be captured manually. WebSphere Commerce provides a helper JavaScript library for these cases. Examples of events that require manual capture are DOM events that are blocked by the browser and Ajax requests that require the DOM tree to dynamically rescan. Examples of each can be found in the Information Center. A link is provided in the next section of the presentation.

Security highlights for data capture

- Passive Capture Application (PCA)
 - Provides full support of SSL transactions
- UI Capture j2 (UIC)
 - Sensitive information is configured to be masked in the privacy rules of the UIC configuration
 - For example: credit card number, CVV, banking routing number, bank account number, logon password
 - Data is not sent to Tealeaf capture server nor displayed during replay
- For more information
 - <https://community.tealeaf.com/display/tealeaf87/Managing+Data+Privacy+in+Tealeaf+CX>
 - <https://community.tealeaf.com/display/tealeaf87/Data+Privacy+in+UI+Capture>

Security is an important consideration when enabling Tealeaf data capture for your store. The Passive Capture Application provides full support of SSL transactions. For UI Capture, you have control over what information is captured by configuring the privacy masking rules in the Tealeaf JavaScript file your store includes. Sensitive information that you define a masking rule for, such as credit card number, is not sent to the Tealeaf capture server and is not displayed during replay. You can learn more about Tealeaf security by following the Tealeaf community links on this slide.

Replay captured shopper sessions

- RealiTea Viewer (RTV)
 - Configurable desktop application
 - Advanced search and replay system
- Browser Based Replay (BBR)
 - Browser-based tool that runs within the Tealeaf Portal
 - Known limitation for Aurora store sessions captured with Chrome or Safari
- Replay rules
 - Add to either RTV or BBR to make the replay closer to the original customer experience
 - For example: Custom UI event highlighting rule
 - Mimic the change action of the shopping cart item quantity input

There are two options for replaying captured shopper sessions. One option is the RealiTea Viewer or RTV. It is a configurable desktop application that provides an advanced search and replay system. The second option is Browser Based Replay or BBR. This replay mode is available through the Tealeaf Portal. With the Aurora store integration, there are known issues with using BBR replay for sessions captured from Chrome or Safari. RTV is recommended in these cases.

Both replay tools require replay rules to be configured before viewing the captured data. A replay rule is a modification to the session data during replay so that the replay looks as close as possible to the original experience of your website's visitor. For example, a UI event highlighting rule can be defined to mimic the change action of the shopping cart quantity input field. Suggested replay rules for both RTV and BBR are documented in the Information Center.

Replay with BBR

IBM Tealeaf CX

Search Online Help Admin

Navigation: Start Replay Previous Next Request Response **Replay** Overlays

Filter By: Gen Time: 0.004 Nel Trip: 0.014 Round Trip: 0.018 Response Size: 773b Status Code: 200

Page: 1 Welcome to AuroraESite, 6 Welcome to AuroraESite, 8 Dresses | AuroraESite, 18 Shopping Cart

Browser: Firefox Browser Platform: WinXP Browser Major Version: Firefox17.0 Traffic Type: BROWSER Replay Renderer: Mozilla/html

Wish List | Language/Currency | Sign In/Register | Subtotal: \$300.00 | 1-800-555-1234 | Store Locator | Cart: 2 item(s)

Departments Search All Departments

Shopping Cart Continue Shopping

Product	Availability	QTY	Each	Total	Recommended
Versati Empire Waist Sundress SKU: AuroraWMDRS-014 Change Attributes Move to Wish List Remove	In-Stock	-2			Hermitage Collection Rockport Tahart \$39.00
Hermitage Gored Evening Dress SKU: AuroraWMDRS-712 Change Attributes Move to Wish List Remove	In-Stock	1	\$250.00	\$250.00	

The value in the Quantity field is invalid. Ensure the value is a positive integer and try again.

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The screen capture on this slide shows an example of session replay in BBR. Once again, the field the customer is interacting with, quantity, is highlighted. You can also see the error message that was shown to the customer when they entered an incorrect quantity value.

Enabling the Tealeaf integration

- Enabled through the Analytics tab in Store Management tool



You can enable Tealeaf data capture for the Aurora storefront through a new feature check box on the Analytics tab in the Store Management tool. Turning this feature on signals that the UI capture JavaScript library should be loaded in the storefront. It is still necessary to install and configure Tealeaf to complete the integration.

Adoption details

This section summarizes the steps needed to add Tealeaf support for your store.

Adoption checklist

- Prerequisites
 - Aurora store is published
 - Tealeaf services install and configure Tealeaf 8.7
 - Obtain version 8.7 of the cxUICaptureJS library from Tealeaf
- Installation
 - Added through feature pack enablement: store-enhancements
- Migration
 - None
- Configuration effort
 - Moderate
- Store development effort
 - None for the Aurora sample
 - Moderate to enable additional flows

If you plan to add Tealeaf integration for your store, you should start by arranging for the Tealeaf services team to install and configure Tealeaf. The details of that process are not covered by this presentation. Once Tealeaf is installed, you need to obtain version 8.7 of the cxUICaptureJS library. This is used to generate the Tealeaf JavaScript file that your store will include. To make use of the integration work done in Feature Pack 6, you need to publish the latest version of the Aurora store. On the WebSphere Commerce side, all new store capabilities are enabled through the store-enhancements component. Since this is a new integration, there is no migration step but a moderate configuration effort is required to set up the UI capture environment and replay rules. Also, store development effort is needed if you plan to enable capture for additional store pages beyond the checkout flow.

Configuration

- Install and configure Tealeaf servers
 - Performed by Tealeaf Professional Services
- Configure UI Capture environment
<http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.developer.doc/tasks/ttlconfigcapture.htm>
- Configure Fiddler for capture in a development environment
<http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.developer.doc/tasks/ttldevenvironment.htm>
- Enable store function option
<http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.developer.doc/tasks/ttlenabletealeaf.htm>
- Configure replay rules
<http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.developer.doc/concepts/ctlreplaycont.htm>
- Register for Tealeaf online help
<http://www.tealeaf.com/customer-experience-management/resource-center/via-tealeaf-signup.php>

This slide contains links to Information Center articles on the various configuration tasks you need to perform for the Tealeaf integration. First you configure the UI Capture environment which generates the Tealeaf JavaScript file you will include in your store. This step includes setting up privacy masking rules to avoid capturing sensitive data. Next, you can configure your development environment to test that UI events are being captured. Enabling the store function option causes the Tealeaf JavaScript to be loaded for your store. Configuring the replay rules allows you to examine the captured customer sessions. You should also register with the Tealeaf community website to access online help.

Store development

- Enable Tealeaf capture for additional store pages

<http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.developer.doc/tasks/ttenablingclientsidecaptureinstorepages.htm>

This Information Center article provides details on how to enable Tealeaf capture for store pages that are not enabled as part of this integration. These steps have already been completed for the checkout flow in the Aurora store.

Troubleshooting

This section summarizes some troubleshooting tips for the Tealeaf integration.

Testing UI capture

- Testing UI capture during development
 - Use Fiddler to capture HTTP/HTTPS traffic from Aurora
 - Replay data in RTV or BBR
 - Note: Use BBR only if you have a Tealeaf server installed and Tealeaf PCA is configured to capture the traffic from your development environment
 - Missing events can be captured manually using the tealeafWC.js library

- References:

<http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.developer.doc/tasks/ttlcapturingclientsession.htm>

<http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.developer.doc/tasks/tlenablingclientsidecaptureinstorepages.htm>

When you are enabling store pages for UI capture, it is helpful to be able to test which events are being captured. You can use Fiddler, a web debugging proxy, to capture traffic from the Aurora store. The data captured can be replayed using RTV or BBR. Note that to use BBR, Tealeaf PCA must be configured to capture the traffic from your development environment. If you find that some store events are not being captured, you can use the WebSphere Commerce helper library to manually capture the events. For further information, see the reference links on the slide.

No UI events are displayed in RTV or BBR

- Possible causes
 - The path of TealeafTarget.jsp is not correct in tealeaf.js
 - Tealeaf.js is not formatted correctly (after manual updates)
 - TealeafTarget.jsp is not in the configured folder
 - **Enable Tealeaf Integration** store feature has not been enabled

If you encounter a problem where no UI events are displayed in RTV or BBR there are a few possible causes to look for. The first is that the path to the TealeafTarget JSP file is not correct in your copy of the Tealeaf JavaScript library. Another possibility is that formatting errors were introduced into the JavaScript file as the result of manual editing. If the JavaScript file looks correct, it is possible that the TealeafTarget JSP is not present in the specified folder. Finally, the Tealeaf integration store feature must be enabled for the Tealeaf JavaScript to be loaded by the store.

Unmasked security information displayed during replay

- Possible cause
 - The privacy masking rules are not configured properly in tealeaf.js

It is important to test the replay of pages containing sensitive customer data. If you see unmasked sensitive information displayed during replay it means the privacy masking rules are not correctly configured in your copy of the Tealeaf JavaScript library.

Replay problems in RTV

- Symptom
 - Quick Info popup or remove item from shopping cart cannot be replayed
- Possible causes
 - tealeaf.js is not configured properly
 - See step 4b:
<http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.developer.doc/tasks/ttlconfigcapture.htm>
 - RTV is not configured properly
 - Make sure **Allow replay from localhost** is unchecked under **Tools > Options > Advanced**

Replay problems in RTV, such as not being able to replay quick info popup or remove item from shopping cart actions can have two different causes. First, there might be a configuration problem with your Tealeaf JavaScript library. A link to more information on configuration is provided on the slide. The second possible problem is that RTV is not configured correctly. You should make sure that the “Allow replay from localhost” option is unchecked.

Summary

- Overview
- Adoption details
- Troubleshooting

This presentation began with an overview of the Tealeaf Customer Experience integration. Next, a summary of the details for adopting the integration was provided. The presentation concluded with some troubleshooting tips.

References

- Administering IBM Tealeaf Customer Experience
 - <http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.admin.doc/concepts/ctladmintealeafcont.htm>
- Configuring IBM Tealeaf Customer Experience
 - <http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.developer.doc/concepts/ctldevcont.htm>
- Tealeaf community
 - <https://community.tealeaf.com>
 - Register for access at:
<http://www.tealeaf.com/customer-experience-management/resource-center/via-tealeaf-signup.php>

This slide contains some useful references for working with the Tealeaf integration.

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