
WebSphere Commerce V7 Feature Pack 3

Precision marketing updates



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WebSphere® Commerce V7 Feature Pack 3 includes some precision marketing updates. There is a new trigger, Customer Checks out with Promotion, and updates to the existing Customer Participates in Social Commerce trigger and Social Commerce Participation target.

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This presentation will review some concepts of WebSphere Commerce V7 precision marketing and then walk through the changes in Feature Pack 3.

Precision marketing review

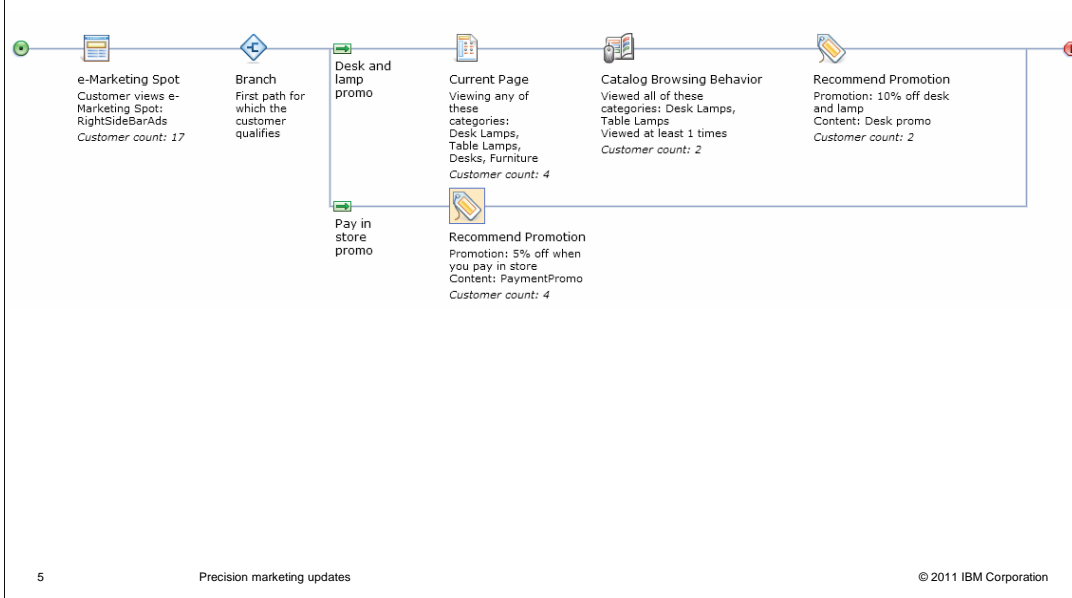
Before getting into the changes and updates made for Feature Pack 3, this section will review the precision marketing concepts of a web activity, search rule, and dialog activity.

Web activities

- E-marketing Spot based
- Personalized content
- Based on current and past actions

A web activity exists completely within an e-marketing spot of an online store. Web activities allow you to deliver personalized content to help influence purchases and drive sales. The content shown can take into account current and past actions within the store and membership in customer segments.

Sample web activity



This screen capture shows a sample web activity and activity element counters. Web activities are triggered only by the presence of an e-Marketing spot on a page. Included in this web activity is a trigger, target, branch and action. A trigger is used to wait for a customer to do something, or to wait for a certain period of time to elapse. When a trigger occurs, the activity flow can continue from where the trigger was defined in the flow. A target is used to qualify customers for subsequent actions or continue execution of the activity flow. Targets are typically based on a customer's behavior and segmentation. An action is a step to perform as part of the activity flow. Actions are the "to do" based on the previous sequence of triggers and targets. Most actions are for marketing purposes, such as display content in an e-marketing spot, or send the customer an email. A branch is a decision node in an activity where the customer can see or qualify for different content based on some outcome or result.

Dialog activities

- Multi-step interactions
- Initiated by specific shopper action
- Track behavior over time
- Extend beyond e-Marketing Spots

Dialog activities are marketing activities that allow for multi-step interactions that map out a series of steps to achieve a customer result such as making a purchase. Initially, the shopper must take some action or be placed in a segment to initiate the dialog. Once the dialog has started it can look for and react to future behavior of the shopper rather than just current or past behavior.

Dialog activity triggers

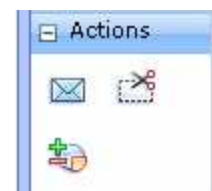
- Version 7
 - Wait
 - Customer Registers
 - Customer Places Order
 - Customer Participates in Social Commerce
 - Customer Abandons Shopping Cart
 - Customer Celebrates Birthday
 - Customer Is In Segment
- Feature Pack 1
 - Wait For Event
- Feature Pack 2
 - Customer Searches
 - Recurring Order Event
 - Subscription Event
- Feature Pack 3
 - Customer Checks Out With Promotion



Dialog activities can use many triggers to initiate and control the flow of a marketing activity. The Customer participates in social commerce trigger looks for a specified number of social content contributions within a specified period of time. This trigger is enhanced to include additional parameters in Feature Pack 3. New for Feature Pack 3 is the Customer Checks out with Promotion trigger. You use this trigger to begin or continue a dialog activity when a customer checks out and a specific promotion has been applied to the order. The rest of the triggers listed here are explained in more detail in the reference section of the presentation.

Dialog activity targets and actions

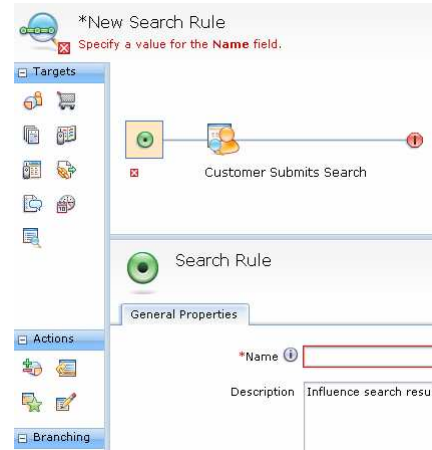
- Targets
 - Customer Segment
 - Shopping Cart
 - Purchase History
 - Catalog Browsing Behavior
 - Online Behavior
 - Social Commerce Participation
 - Day and Time
- Actions
 - Send Message
 - Issue Coupon
 - Add To or Remove From Customer Segment



The dialog activity targets and actions are listed here. The Social Commerce Participation target allows a Marketing Manager to target customers based on their social commerce behavior. This target is enhanced to include additional parameters in Feature Pack 3. For more details on the targets and actions go to the reference section of the presentation.

Search rule

- Define business rules to control search results
 - Change result ordering and ranking
 - Define top search results
 - Modify search criteria
 - Apply precision marketing targets
- Graphical builder similar to web and dialog activities



Another type of business rule that can be set up is a search rule. Search rules were a new concept in Feature Pack 2. These business rules allow you to tailor the search results displayed in the storefront based on a variety of different criteria. Search rules are defined using the Management Center Marketing tool. They are composed using a graphical builder similar to the web and dialog activity builders. Search rules also borrow the concept of precision marketing targets from web and dialog activities. Many of the same targeting criteria, such as Social Commerce Participation, can be used in building search rules. The output of a search rule is a modification to the search results the customer sees in the store.

Customer Checks Out with Promotion

The feature pack includes a new dialog activity trigger called Customer Checks out with Promotion.

New trigger

The screenshot shows a configuration window for a trigger titled "Customer Checks Out With Promotion". At the top left is an icon of a person with a coupon. Below the title is a search bar with a "Find and Add" button and icons for refresh and help. The main configuration area includes:

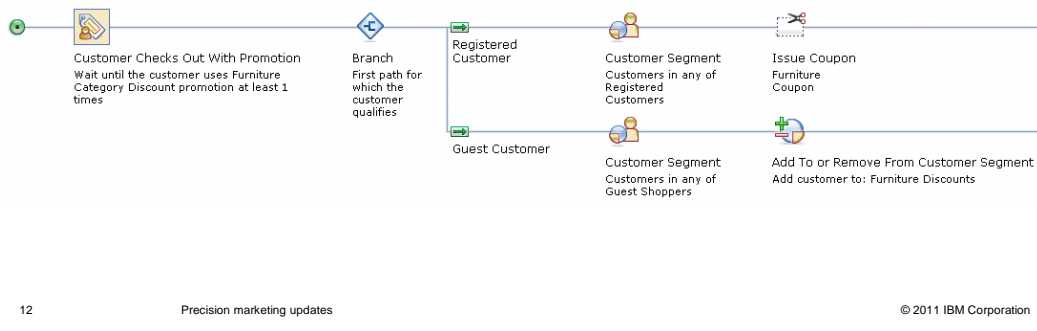
- *Promotion** (with an information icon): A dropdown menu with a coupon icon, showing a table with two columns: "* Type" and "* Administrative Name". The table contains one entry: "Furniture Category Discount". Below the table, it says "0 of 1 selected".
- *Times** (with an information icon): A numeric input field containing the value "2".
- Time frame** (with an information icon): A dropdown menu currently set to "On the following date".
- *Date** (with an information icon): A date input field containing "2011/05/23" and a calendar icon.

At the bottom of the window, there is a page number "11", the text "Precision marketing updates", and the copyright notice "© 2011 IBM Corporation".

The Customer Checks out with Promotion trigger shown here allows you to provide an incentive to shoppers who use promotions. For example, you can set the trigger up so that once a shopper checks out using a coupon they are given a new coupon in return or qualify for some other promotion. You create a dialog activity with a trigger based on promotion usage by specifying the number of times the promotion needs to be used within a certain time frame. The time frame options include at any time, before the following date, after the following date, on the following date, between the following dates, and within the last "X" days. In order to use the Customer Checks out with Promotion trigger, the promotion you want to specify must exist. The promotion must be active and the promotion time frame must be valid for the dialog activity to work as expected.

Sample usage scenarios

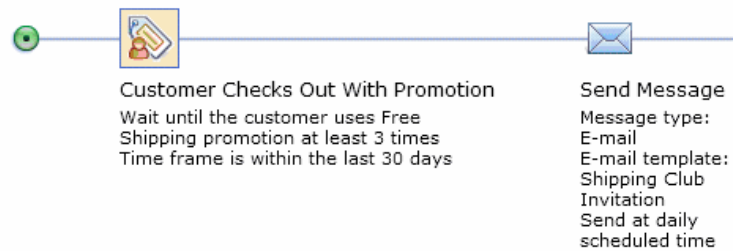
- Scenario 1: Registered customer checks out with promotion and receives an email with another promotion
- Scenario 2: Once a customer checks out with a promotion the customer will qualify for future promotions. Registered customers will get a coupon issued to their account, and guest customers will get put into a customer segment group. That group can then be targeted using promotions and web activities.



Two sample scenarios using the Customer Checks Out With Promotion trigger are shown here. The first is a simple scenario where you can set up the Customer Checks Out With Promotion trigger so that when a registered customer checks out with a promotion, they will receive an email with another promotion. The second scenario uses a branch and two different actions once a customer uses the Furniture Category discount promotion. The first action is if the shopper is a registered customer they will get a coupon issued to their account. The second action is if the shopper is a guest customer they are added to a customer segment group that can be targeted using promotions and web activities.

Sample usage scenarios continued

- Scenario 3: Registered customer checks out with a free shipping promotion 3 times within 30 days. They are then sent an email offering a membership in a discount shipping club.



A third sample scenario is shown here. In this scenario, if a registered customer checks out with a free shipping promotion 3 times within 30 days they are sent an email offering a membership into a discount shipping club.

Implementation details

- Submitted order generates an "Order Submission Event"
- Trigger evaluation happens when RaiseECEvent scheduled job runs
- Trigger implementation task command
 - Provides parameter validation when trigger is activated
 - Evaluates if a customer passes the criteria
 - `com.ibm.commerce.marketing.commands.elements.CustomerUsesPromotionTriggerTaskCmd`

This slide contains the implementation details for the new Customer Checks out with promotion trigger. When a customer submits an order, an Order Submission Event is generated. The trigger evaluation happens when the RaiseECEvent scheduled job runs. The trigger evaluation uses the marketing engine task command, CustomerUsesPromotionTriggerTaskCmd. This command has the performExecute() method to evaluate if a customer passes the criteria. This trigger interacts with the promotion engine to ensure the correct usage of the promotion and confirm that the conditions of the Customer Checks Out With Promotion trigger have been satisfied. If the result of this evaluation returns true, then the customer will move along the activity flow past the trigger. The task command also has a validateParameters() method to check if all the required data has been provided, such as the promotion, number of times, and time frame values.

Social Commerce trigger and target updates

The feature pack includes enhancements to the existing Social Commerce trigger and target.

Store page with social content in WebSphere Commerce V7

The screenshot displays a product page for a 'White Fabric Roll Arm Chair' on the MADISONS website. The page includes several social content widgets:

- Social profiles:** A widget for a user named 'celest01' showing details such as Gender (Female), Hometown (Mytown), Screen Name (celest01), Interests (Shopping), E-mail Address, and Birthday.
- Ratings and Reviews:** A section showing a 4.8 star rating for the product, with a 'Create Review' button and a list of reviews.
- Photo Galleries:** An 'Outdoor Photo Gallery' featuring three photos with captions like 'after the rain', 'from the deck', and 'first picture for...'. Each photo includes a 'Zoom' button and a 'View more photos' link.
- Blogs:** A 'Coffee Tables Blog' section with three entries, each showing a thumbnail, title, author, and date.

At the bottom of the page, there is a footer with the text '16 Precision marketing updates © 2011 IBM Corporation'.

WebSphere Commerce V7 social content provides the ability for registered customers to create social profiles and ratings and reviews. Customers can create product reviews and rate products from one to five stars. They can create blog entries and provide comments on other's blogs. Customers can also upload pictures to photo galleries. Customers can do a Thumbs up to recommend a Blog or Photo and Report Inappropriate Blog and Photo Content. There is also a social bookmarking feature. The social content features all consist of front end dojo widgets integrated with backend services with pluggable APIs to connect with different service providers. The service providers include Lotus[®] Connections, Pluck, and Bazaarvoice where the social profiles, ratings, photo and blogs are stored.

Social Bridging feature pack 2

The screenshot shows a web application interface for a blog titled "Lounge Chairs Blog". At the top, it indicates the user is "Connected to Facebook as Brett Tester" with a "Disconnect" link. The interface includes a "Create Entry" button and a "Refresh" button. Below this, there are four blog entries, each with a user profile picture, name, and timestamp. The entries are:

- Victor Jones@Facebook: "Looking for a great Lounge Chair, any suggestion" (11/10/2010 4:05 PM)
- Joe Woo@Facebook: "Which chair would be best to handle stains?" (11/9/2010 9:21 PM)
- Jane Smith@Twitter: "Need recommendation for fabric protector" (11/11/2010 9:25 AM)
- John Woo@Facebook: "Can anyone tell me what would be suitable for a front room?" (11/10/2010 4:57 PM)

 Callouts point to various features:

- "Logged in to Facebook" points to the user connection bar.
- "Create content using your Facebook or Twitter ID" points to the "Create Entry" button.
- "See highlighted content from your friends" points to the highlighted text in the first two entries.
- "Share blogs or reviews on your Facebook wall or through a Tweet" points to the share icons on the bottom entry.

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Feature Pack 2 included a new Social Bridging feature. This feature allows customers to create reviews, blog posts, and upload photos using their social networking IDs such as Facebook and Twitter IDs. A customer does not need to be logged into the store, rather they can log in with their social networking ID and then create content. Customers can share blogs or reviews to their Facebook or twitter accounts and see their friends' content highlighted.

Updated trigger – Customer Participates In Social Commerce

Customer Participates In Social Commerce

Activity type Any social commerce participation
 Review created
 Comment posted
 Photo uploaded
 Blog created
 Blog or photo recommended
 Inappropriate activity reported

Activity filters

* Name	* Matching Rule	* Value
Star rating	At least	3

1 of 1 selected

*Times

Time frame

Options for 'Any' and 'Review' activity types

- Star rating
- Manufacturer name
- Category
- Catalog Entries

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WebSphere Commerce V7 includes the Customer Participates in Social Commerce trigger. The existing trigger enables targeting of a customer based on their social participation. This trigger has been enhanced to include additional activity types so that information collected through the social commerce widgets can be used. As seen here, you can specify the social activity type and then apply additional filters to match very specific behavior. For example, this trigger can be set up so that if a customer creates a review on a product with at least a three star rating then they will receive a coupon. This trigger can also be customized to support fields from external service providers.

The Customer Participates In Social Commerce trigger includes parameters for activity type, activity filters, times and time frame. There are 7 available activity types. The 'Any social commerce participation' option will match any social commerce activity that is tracked. Selecting this option will cause the trigger to behave in the same way as the original V7 trigger. The Comment posted, Photo uploaded, and Blog created activity types match the corresponding actions in the store. The blog or photo recommended option will match for any thumbs up or recommendation on a blog or photo. The last activity type is the "Inappropriate activity reported" option that will match any "report inappropriate" activity on a blog or photo upload.

The available filters vary by activity type. The activity type options "any social commerce participation" and "review created" include additional filters to specify things such as the star rating, manufacture name, category, or catalog entries. All other activity types except "inappropriate activity reported" include a category filter. If you use the "Any social commerce participation" activity type and select the star rating, manufacturer name or catalog entry filter then you limit the "any social commerce activity" to reviews.

Updated target – Social Commerce Participation

Social Commerce Participation

Target customers Who satisfy all of the following conditions
 Who do not satisfy all of the following conditions

Activity type Any social commerce participation
 Review created
 Comment posted
 Photo uploaded
 Blog created
 Blog or photo recommended
 Inappropriate activity reported

Activity filters

* Name	* Matching Rule	* Value
Category	Matches	Furniture

0 of 1 selected

Frequency

*Times

Time frame

Comment, Photo and Blog activity types have a Category filter

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WebSphere Commerce V7 also introduces the Social Commerce Participation target which allows you to target customers based on their social commerce behavior. Customers with a high number of interactions can be rewarded, and customers with a low number of interactions can be encouraged to participate more. Customers with no interactions can be informed about the social commerce capabilities on the site. The existing target has been enhanced to include the same activity types and filters as the trigger seen on the previous slide. You can also specify the frequency, times and time frame. This screen capture shows the category activity filter available for the “comment posted” activity type. For example, this target can be set up so that if a customer posts a comment entry in the Furniture category, then the Furniture category is included in their category recommendations section of the store. This target can be used in dialog activities, web activities and search rules.

Sample usage scenarios

- Send a \$10 off coupon the first time a shopper rates a product 4 stars or higher
- Add shoppers to a “Brand reviewer” customer segment when they review more than 5 products from the same manufacturer in one month. Use this segment to advertise an invitation-only preview event in store
- Use an e-Marketing Spot to recommend new electronics products to shoppers who have reviewed at least 2 products in the past 60 days.
- Offer shoppers a free gift with their next order when they review a product on the new releases list
- Send a 5% off coupon to shoppers who submit a blog entry within 2 weeks of registering with the store

Here are some sample usage scenarios for the updated trigger and target.

V7 implementation details

- Process MarketingTrigger web service
 - Notify marketing engine of Social Commerce interactions
- Supported interactions
 - Review creation
 - Blog creation
 - Photo upload
 - Comment
 - Flagging a blog or photo as inappropriate
 - Recommending a blog or photo
- Examples
 - `MarketingTriggerProcessServiceEvaluate?DM_ReqCmd=SocialCommerceInteraction&type=blog`
 - `AjaxMarketingTriggerProcessServiceEvaluate?DM_ReqCmd=SocialCommerceInteraction&type=upload`

The V7 implementation details are shown here. The store front is required to inform the marketing engine about all the social commerce interactions. This is done by a call to the Process MarketingTrigger web service. The supported interactions include review and blog creations, photo uploads, comments, flagging a blog or photo as inappropriate and recommending a blog or a photo. In V7, all interactions are treated the same, but they are separated into three types: type=blog for both entries and comments, type=product for reviews, and type=upload for photos. Shown are examples of how the storefront can notify the marketing runtime about a social commerce interaction. It calls one of the URLs shown here. The name value pair “DM_ReqCmd=SocialCommerceInteraction” is required, and the “type” name value pair can be one of the three types: blog, product, and upload. In V7 all activity types are treated the same by the marketing engine.

Feature pack 3 implementation changes

- 'Type' parameter used to signal Social Commerce activity type
 - Any social commerce participation – type=*
 - Review created – type=review
 - Comment posted – type=comment&widget=blog or type=comment&widget=photo
 - Photo uploaded – type=photo
 - Blog created – type=blog
 - Blog or photo recommended – type=recommendation
 - Inappropriate activity reported – type=flagInappropriate&widget=blog or type=flagInappropriate&widget=photo
- Additional parameters passed for use in filter evaluation
- Feature Pack 3 example
 - AjaxMarketingTriggerProcessServiceEvaluate?isExternalUserSignedIn=false&DM_ReqCmd=SocialCommerceInteraction&catalogId=10101&catEntryId=10501&categoryId=10131&type=review&partNumber=MW-0063&manufacturerName=MapleWear&rating=4

In Feature Pack 3, the activity types are more specific in the target and the trigger so the type parameter is used to signal the social commerce activity type. Shown are the activity and the type associated with each activity. Additional parameters are also now passed to the marketing engine to be used in the filter evaluation of the trigger and target. These parameters include information to help determine what type of social interaction was done. A review will include the star rating, manufacture name, category and catalog entries. Other social interactions will include the category. An example is shown here, the parameters show that the customer created a 4 star review for a MapleWare product with part number MW-0063 in the store with catalog ID 10101.

Marketing engine task commands

- Trigger implementation task command
 - Provides parameter validation when trigger is activated
 - `com.ibm.commerce.marketing.commands.elements.EnhancedCustomerParticipatesInSocialCommerceTriggerTaskCmd`
- Trigger related rule task command
 - Evaluates filter criteria to determine if trigger should occur
 - `com.ibm.commerce.marketing.commands.elements.CustomerFilterUserBehaviorTargetTaskCmd`
- Target implementation task command
 - Evaluate filter criteria to determine if target is met
 - `com.ibm.commerce.marketing.commands.elements.EnhancedSocialCommerceParticipationTargetTaskCmd`

The marketing engine task commands are shown here. There is the social commerce trigger implementation task command that provides parameter validation when the trigger is activated. The social commerce trigger and target also have a related rule to help evaluate the filter criteria to help determine if the trigger should occur or the target is met.

Limitations

- Moderation
 - Must monitor for abuse of promotional activities
 - For example: Customers creating fake reviews to get promotion
- Social Bridging
 - Facebook and Twitter users are treated as guest users
 - Tracking is based on their guest user ID rather than their Facebook or Twitter ID

This slide shows some of the limitations or concerns you should think about when using the social commerce trigger and target. Social activity is a rapidly growing space and there are a lot of possibilities for abuse in the social world. If you are going to reward social behavior then you have to monitor and make sure shoppers are not creating fake reviews. Consider how you are going to use the social activity trigger and target and consider the timeframe you are offering for these promotions. Direct actions like coupons can be abused as a customer can create a fake review just to get a coupon. Indirect actions like ads shown to specific customer segments or showing an e-Marketing Spot to check the store out in Facebook are less open to exploitation.

Another limitation occurs within the social bridging feature. Facebook and Twitter users are created as guest users in WebSphere Commerce. The social activity is tracked based on a guest user id. A guest user is a user who has not registered with the store, but who has performed an operation that requires a unique identity. A guest user can be added to or removed from a Customer Segment. Guest users have no Coupon wallet and you do not have permission to send email to guest users. A guest user can however receive a coupon, view it on the Shopping Cart page, and apply it to an order. The guest user must use the coupon within the same session unless both the persistent session function and the Migrate Guest Orders listener are enabled for the store. A guest user is tracked through a cookie. If a customer is logged in with a Twitter or Facebook ID and their cookie is saved on the system, a second guest shopper on the same system will have access to the coupon if the original shopper leaves without completing the order. Social activity tracking for guest users does not follow them to another computer. If a Facebook or Twitter user deletes their cookie or moves to another computer they are assigned a new personalized ID and tracking will start over.

Customization

- Supporting additional activity types or activity filters
- Process external social activities in batch mode
 - Consume external feeds and send events to the marketing engine using the Process MarketingTrigger API

The activity types available for the social commerce target and trigger reflect the existing social commerce widgets. You can customize the Management Center to pass custom parameters to the Social Commerce trigger and target. You can send the custom information to the marketing engine from your own widgets, own applications, or services based on data you receive from external sources. For example, the same web service the social commerce widgets invoke can be invoked by a piece of code that uses Bazaarvoice directly. An event in Bazaarvoice or Facebook can feed back into the marketing engine through a web service indicating an event of some kind had happened. So what was implemented in the feature pack can also be used for external social events that are collected by other means. Other examples include extensions such as location-based services, check-ins, or content sharing through your social network. You can process external social activities in batch mode and can consume external feeds and send events with the social activity information to the marketing engine using the Process MarketingTrigger API.

Customization example

- Example
 - Offer a promotion to a shopper who shares a blog entry
- Suggested solution
 - Extend the ShareIt widget
 - When a customer performs ShareIt record the event and pass the provider (Facebook or Twitter) as a parameter
 - Extend the Blog widget to use the extended version of ShareIt
 - Ensure the extended Blog widget is used on the storefront pages
 - Customize the Management Center
 - Add ShareIt as an activity type for the Trigger
 - Provide a filter so that the trigger can respond differently to specific providers
 - `AjaxMarketingTriggerProcessServiceEvaluate?DM_ReqCmd=SocialCommerceInteraction&type=shareit&widget=blog&provider=facebook`

A customization example is shown here. The example is to offer a promotion to a customer who shares a blog entry on an external social site. First, you extend the ShareIt widget so that it notifies the marketing engine when a blog entry is shared and passes the name of the provider, such as Facebook or Twitter, as a parameter. Next, you can extend the Customer Participates in Social Commerce trigger and add ShareIt as a new activity type with an associated provider filter. The ShareIt activity allows customers to post links to content on the store site back to their social networking profiles. The provider filter allows the trigger to distinguish between different social accounts. You can, for example, respond specifically to the act of sharing content to a Facebook account but not to a Twitter account.

Configuration and problem determination

This next section will cover the configuration and problem determination for the new Promotion trigger and the updates to the Social Commerce trigger and target.

Configuration steps

- Enable the management-center feature for Feature Pack 3
- Enable Management Center marketing features
 - In your server configuration file
 - Enable the Sensor Event Listener

```
<component
  compClassName="com.ibm.commerce.marketing.dialog.trigger.SensorEventListener"
  enable="true" name="SensorEventListener">
  <property display="false">
    <start enabled="true"/>
  </property>
</component>
```

- Enable the Experiment Evaluation Event Listener

```
<component
  compClassName="com.ibm.commerce.marketingcenter.events.runtime.ExperimentEvaluationEventEventListenerImpl"
  enable="true" name="Experiment Evaluation Event Listener">
  <property display="false">
    <start enabled="true"/>
  </property>
</component>
```

- Persistent session and Personalization id

In order to make use of all marketing triggers and targets some configuration steps are necessary. In order to use the new trigger and target features in Feature Pack 3 you need to first enable the management-center feature for Feature Pack 3. You also need to be sure that your site is configured to support the Management Center marketing features. The sensor event listener must be enabled, this listener is used for triggers and targets that wait for customer behaviors or events to occur. In order to capture the event raised when an order is placed, the ExperimentEvaluationEventListener needs to be enabled. These values are all set in the server configuration file. If you manually change the configuration file, it is important that you change the master configuration file. You can find directions on editing this file in the Information Center. Persistent session and personalization ID are needed for marketing activities and are needed for both the Customer Checks out with Promotion trigger and Social Commerce trigger and target.

Scheduled jobs

- Customer Checks Out with Promotion trigger evaluation happens when RaiseECEvent scheduled job runs
 - 5 minute interval
- Customer Participates In Social Commerce trigger
 - No time restraint
- SaveMarketingStatistics
 - 15 min interval

The Customer Checks out with Promotion trigger will occur in a 5 minute interval because the evaluation happens when a RaiseECEvent scheduled job runs. RaiseECEvent is set up by default to run every 5 minutes by the scheduler. The Customer Participates in Social Commerce trigger happens right away way and is not based on any event time interval.

The SaveMarketingStatistics job saves accumulated statistics to the database. It also saves marketing-related user behaviors. This is for the case if you want to look at activities such as how many times a customer was issued a coupon or how many times the Customer Checks out with Promotion trigger evaluated to true. This job runs every 15 minutes.

Problem determination

- Same trace options as V6 - marketing trace component
 - com.ibm.websphere.commerce.WC_MARKETING=all:
com.ibm.commerce.marketing.*=all: com.ibm.commerce.foundation.*=all:
com.ibm.commerce.content.*=all: com.ibm.commerce.membergroup.*=all:
com.ibm.websphere.commerce.WC_USER=all
- MustGather Marketing links for WebSphere Commerce V7.0
 - <https://www-304.ibm.com/support/docview.wss?uid=swg21454420>
 - <https://www-304.ibm.com/support/docview.wss?uid=swg21447154>
- SensorEventListener trace is helpful
- Other things to check
 - Configuration
 - Scheduled jobs
 - Database tables

Here are a few problem determination tips. The marketing trace component remains the most effective way of tracing marketing runtime behavior. The SensorEventListener provides significant information about trigger and target behavior being recognized and processed. Beyond trace statements, the instance configuration and marketing configuration files can be checked to ensure things have been enabled correctly. Scheduled jobs are also important to the operation of the marketing runtime. As another option, the database tables can be checked to verify expected values are present. In particular, checking DMTRIGLSTN and DMTRIGSND is a way to quickly check the state of problem triggers.

Sample problem scenario solutions

- Example 1: Activity is not triggered
 - Config: SensorEventListener, Repeatable flag
 - Scheduler: SendMarketingTriggers
 - Related DB tables: DMTRIGLSTN, DMTRIGSND

- Example 2: User behavior not recognized
 - Config: Persistent session id, personalization id, SensorEventListener

Here are two example problem scenarios. The first example is when an activity trigger seems to not work. There are a few different places you can check for problems. The first thing to confirm is always whether the activity has been activated. If the activity is active and no activity triggers are being sent, a good place to start is with the SensorEventListener. It must be enabled for triggers and user behaviors to be recognized. Another configuration possibility is the repeatable flag. If this flag is set to false, each shopper can only participate in the activity once. Web activities in particular should have repeatable set to true. If the SensorEventListener is on, you can check that the SendMarketingTriggers scheduled job is running and that the scheduler is not backed up. To confirm that the trigger is actually registered, check DMTRIGLSTN, and to confirm trigger events are being recognized, check DMTRIGSND.

The second example is when user behavior is not recognized. For this it is most likely a configuration problem. Persistent session, personalization ID and the SensorEventListener must all be enabled for user behaviors to be recognized.

Sample problem scenario solutions 2

- Example 3: User behavior not captured
 - Config: wc-admin-component.xml
 - Scheduler: SaveMarketingStatistics
 - Related DB tables: DMUSERBHVR
 - Here are examples of recorded BEHAVIOR column value in the DMUSERBHVR table:
 - Review – '<Behavior><Fed id="17260" value="review,2011-06-10 00:21:45.684"/></Behavior>'
 - Comment – '<Behavior><Fed id="17304" value="comment,2011-06-10 00:53:17.028"/></Behavior>'
 - Any – '<Behavior><Fed id="12613" value="*,2011-06-10 00:39:55.512"/>'
- Example 4: Shopper not added to member group
 - Config: Management Center or MRRGRPCOND, Persistent session id, personalization id
 - Related DB table: DMMBRGRPPZN

Here are two more example problem scenarios. The first is that user behavior is not being captured. The settings for which user behavior is to be captured in the database is configured in wc-admin-component.xml. Some behaviors, such as recently viewed categories or products are not captured by default. The configuration file also determines how much user behavior data to keep in memory before a batch job runs to store it in the database. In addition to a batch save, all marketing user behaviors are saved to the database by the SaveMarketingStatistics scheduled job. You can check the DMUSERBHVR table, but this will only show behaviors that have been persisted, not what is currently in memory.

The last example is if a customer meets all trigger and target criteria for an activity, but is not added to a member group as expected. The most likely cause is the member group was not configured for dynamic updates. You can check the member group set up in Management Center or directly check the MBRGRPCOND table. Also, since dynamic member group additions are done by personalization id, both persistent session and personalization ID must be enabled. You can check who has been added to a group by looking at the DMMBRGRPPZN table.

Useful strings to look for in the trace.log file

- Did the trigger/target evaluate to true or false?
 - CustomerFilterUserBehaviorTargetTaskCmdImpl performExecute result
- Were the values matched?
 - MarketingUtil getMatches – Is it a match?
- Pay attention to any trace from
 - com.ibm.commerce.marketing.dialog.util.UserBehaviorRule
- See how the social commerce events are being recorded
 - com.ibm.commerce.marketing.dialog.trigger.SensorEventListener

Listed here are some useful strings to look for in the trace.log file.

Customization troubleshooting

- Management Center
 - Did you Build Open Laszlo Project for LOBTools?
 - This is needed when changing *.lzx files.
 - Did you republish the server?
 - This is needed when you change *.properties files
 - Did you clear the cache for the browser on which you are viewing Management Center?
 - This is needed when you change *.def files.
 - Are you seeing the name of the property containing the text in place of the text you intended to see?
 - Be sure that the new property file has been registered in a resource bundle
 - Be sure you consistently using the correct bundle ID when registering and using these properties
 - Be sure to add your new bundle to the appropriate Extensions Library

In the customization scenario listed earlier, updates were made to the Management Center and to the store front. Here are some troubleshooting things to consider. In the Management Center be sure you built the Open Laszlo Project for LOBTools, republished the server, and cleared the cache for the browser. Also, if you are seeing a property name in place of the text you intended to see be sure to check the bundle scenarios listed here.

Customization troubleshooting

- Store Front
 - Is your extended version of the widget not being found?
 - Be sure to add your social commerce extensions to Stores/WebContent/<store>/SocialCommerce/include/SocialCommerceEnvironmentSetup.jspf
 - Is the store using the older version of the widget instead of your extended version?
 - Ensure that you have found every location where the original widget is used

For the store front side if the changes you made to the widget are not being shown be sure to add the social commerce extensions to the JSP file shown here. Also, be sure you have found every location where the original widget was used so that you can update it.

Summary

- Precision marketing review
- New Customer Checks Out with Promotion trigger
- Updates to Social Commerce trigger and target
- Problem determination

WebSphere Commerce V7 Feature Pack 3 includes some precision marketing updates. There is a new trigger, Customer Checks out with Promotion and updates to the existing Customer Participates in Social Commerce trigger and Social Commerce Participation target.

References

- **Customer Checks Out with Promotion Trigger**
<http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/concepts/csbtrichcheckpromo.htm>
- **Customer Participates In Social Commerce Trigger**
<http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/concepts/csbtrisoscom.htm>
- **Social Commerce Participation Target**
<http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/concepts/csbstarsocom.htm>
- **Enabling and configuring Social Commerce**
<http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.install.doc/tasks/tigsoccom.htm>
- **Enabling Management Center marketing features**
http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/tasks/tsbenable_dup.htm
- **WebSphere Commerce configuration file**
<http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.admin.doc/concepts/ccmxml.htm>

Here are some useful references.

Dialog activity triggers - reference

- Version 7
 - Wait
 - Customer Registers
 - Customer Places Order
 - Customer Participates in Social Commerce
 - Customer Abandons Shopping Cart
 - Customer Celebrates Birthday
 - Customer Is In Segment
- Feature pack 1
 - Wait For Event
- Feature pack 2
 - Customer Searches
 - Recurring Order Event
 - Subscription Event
- Feature pack 3
 - Customer Checks Out With Promotion

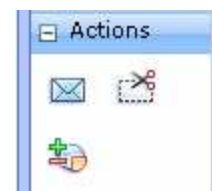


Dialog activities can use many triggers to initiate and control the flow of a marketing activity. The Wait trigger waits for the specified number of minutes, hours, days, weeks or months and then the activity continues where it left off. The Customer registers trigger is a true or false evaluation based on customer registration. The Customer places order trigger is a simple true or false evaluation. The Customer participates in social commerce trigger looks for a specified number of social content contributions with a specified period of time. This trigger is enhanced to include additional attributes in Feature Pack 3.

The Customer Abandons Shopping Cart trigger checks for carts that have been abandoned for a specified number of days. The Customer celebrates birthday trigger checks for customers who are celebrating a birthday within a specified number of days. The Customer is in segment trigger is a true or false evaluation of the shopper's membership in a specified segment. Feature Pack 1 included the Wait for Event trigger. This is a "make your own" trigger. It is used to trigger a dialog activity when a specific event occurs that the existing triggers in the Marketing tool do not support. Feature Pack 2 included 3 more triggers. Customer Searches trigger is used to reach out to a customer based on the customer search history. Recurring Order Event trigger is used to begin or continue the activity as soon as a recurring order event occurs. Subscription Event trigger provides a means to reach out to customers when a subscription event occurs. New for Feature Pack 3 is the Customer Checks out with Promotion trigger. You use this trigger in a Dialog activity to begin or continue the activity when a customer checks out and a specific promotion has been applied to the order.

Dialog activity targets and actions - reference

- Targets
 - Customer Segment
 - Shopping Cart
 - Purchase History
 - Catalog Browsing Behavior
 - Online Behavior
 - Social Commerce Participation
 - Day and Time
- Actions
 - Send Message
 - Issue Coupon
 - Add To or Remove From Customer Segment



Dialog activities can use many targets. Customer Segment target is used to target customers who belong, or do not belong, to specific customer segments. Shopping Cart target is used to target customers whose current shopping cart contents meets certain criteria. Purchase history target is used to target customers whose purchase history with your site meets certain criteria. Catalog Browsing Behavior allows marketing managers to track the behavior of a shopper over time and display a marketing message when a specified behavior pattern is met. The Online Behavior target is similar to the Catalog Browsing target, but tracks other site usage over time. Search keywords can be tracked and URL name / value pairs. When a particular behavior pattern is met, the marketing message is displayed. The Social Commerce Participation target allows a Marketing Manager to target customers based on their social commerce behavior. This target is enhanced to include additional attributes in Feature Pack 3.

The Day and Time target specifies valid days of the week and time ranges and evaluates the current system time to see if it falls within the specified criteria.

Actions available in a dialog activity include send an email or SMS message to an individual customer, Issue a Coupon to an individual customer, and Add/Remove Customer to/from a Segment.

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