WebSphere Commerce V7.0

Multi-channel precision marketing administration

This presentation introduces multi-channel precision marketing administration in WebSphere® Commerce version 7.

Goals

- To understand the configuration options available for multi-channel precision marketing

- To understand the problem determination steps marketing features

© 2009 IBM Corporation

2

At the end of this presentation, you should understand the configuration options available for multi-channel precision marketing. You should also understand how to begin problem determination when a marketing feature does not work as expected.
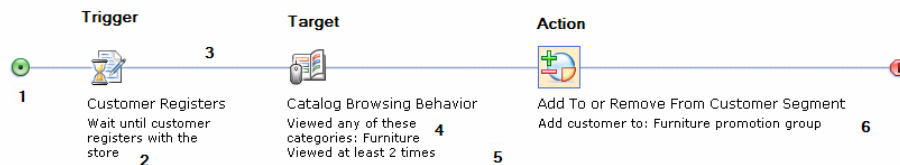
IBM

Agenda

- Configuration

- Problem determination

© 2009 IBM Corporation

3

This presentation will introduce multi-channel precision marketing configuration followed by problem determination steps.

Marketing activity flow

Trigger   **Target**   **Action**

3

Customer Registers

Wait until customer registers with the store

Catalog Browsing Behavior

Viewed any of these categories: Furniture
Viewed at least 2 times

Add To or Remove From Customer Segment

Add customer to: Furniture promotion group

1   2   4   5   6

- 1. Trigger entered in DMTRIGLSTN on activate
- 2. Trigger event captured in DMTRIGSND
- 3. SendMarketingTriggers job runs
- 4. SensorEventListener captures behavior in memory
- 5. SaveMarketingStatistics job runs. Behavior stored in DMUSERBHVR
- 6. Customer added to DMMBRGRPPZN

Before looking at individual configuration options, it is helpful to understand the runtime flow of a marketing activity. The steps shown on this slide follow the runtime evaluation process.

In step one, the activity is activated. When an activity is activated, all triggers that are part of the activity are registered in the trigger listener table (DMTRIGLSTN). This table forms a list of all the events the marketing runtime should be listening for.

In step two, a customer has registered with the store, creating a trigger event. When a trigger event is recognized by the SensorEventListener, it is not sent to the marketing runtime right away. Instead, it is stored in the trigger send table (DMTRIGSND).

In step three, the SendMarketingTriggers scheduled job runs which checks for triggers waiting to be sent and passes them to the marketing runtime. The marketing runtime advances the activity past the trigger.

In step four, the target is evaluated. For targets, the SensorEventListener recognizes targeted behaviors and stores the behavior in memory.

In step five, the SaveMarketingStatistics job runs. When the SaveMarketingStatistcs scheduled job runs, it stores both statistics and user behavior to the database. User behavior is stored in the marketing user behavior table (DMUSERBHVR).

Finally, in step six, the customer is dynamically added to a member group through a Web activity. The customer is identified by personalization ID rather than member ID. Membership in a group is captured in the member group to personalization ID relationship table, DMMBRGRPPZN.

Configuration

- Server configuration
  - ▸ wc-server.xml
  - ▸ Persistent session
  - ▸ Personalization ID
  - ▸ SensorEventListener
    - Performance tip: only monitor the Stores module
- Trigger testing options
  - ▸ wc-admin-component.xml
    - timedEventTest = true
    - timedEventTestInterval = 1

© 2009 IBM Corporation

5

In order to make use of all marketing triggers and targets some configuration steps are necessary. Persistent session and personalization ID are needed for marketing activities that record customer behavior. The sensor event listener must be enabled to use triggers and targets that wait for customer behaviors or events to occur.

In order to gather statistics for Experiments, ExperimentEvaluationEventListener and OrderSubmissionEvent need to be enabled. No additional events or listeners need to be enabled to gather activity element statistics.

These values are all stored in the WebSphere Commerce configuration file.

To improve performance, you can limit the SensorEventListener to monitor events raised only by the stores module.

There is a configuration option that makes it easier to test triggers that normally take several days to be sent. First, you need to create a custom wc-admin-component.xml file. You can see the existing file for documentation on setting the parameters. The element timedEventTest signals that triggers should be in test mode. The element timedEventTestInterval is the number of minutes to wait before sending all wait triggers. Note that this value controls the send time of the trigger in DMTRIGSND. You still need to wait for the SendMarketingTriggers job to run.

Information on locating and updating these configuration files can be found on the References page at the end of the presentation.

Scheduled jobs

- SendMarketingTriggers
  - ▶ 30 min interval
  - ▶ sendImmediate flag – recommend using 'false'
- SaveMarketingStatistics
  - ▶ 15 min interval

6

There are two scheduled jobs associated with marketing activities.

The SendMarketingTriggers job calls the processMarketingTrigger Web service with the SendTriggers action. There are no parameters for this job.

For the Customer Abandons Shopping Cart, Customer Celebrates Birthday, and Customer Is In Segment triggers, this job processes the triggers at the time configured in the marketing component configuration file. By default, the time is 2:00 a.m. each day.

For the Customer Registers, Customer Places Order, Customer Participates in Social Commerce, and Wait triggers, this job processes the triggers the next time the job runs after the trigger occurs.

The SaveMarketingStatistics job saves accumulated statistics to the database. It also saves marketing-related user behaviors.

Caching

- Business object caching

- Command caching

- JSP caching

- Data recording

7

Caching is important in ensuring marketing activities perform well in your site. There are several caching options to consider.

Business object caching ensures there are no queries of marketing database tables when evaluating the marketing rules for a customer. The data that is stored in the cache includes: Activity business objects, Element business objects, and Trigger Listener business objects. Rules for detecting the occurrence of Triggers and Target behaviors, Default Content associated with an E-Marketing Spot, and E-Marketing Spot Ordering rules are also stored.

The most expensive part of evaluating a marketing rule is the query to return the SDO business object of what should be displayed to the shopper. For example categories, catalog entries, or marketing content. Cacheable commands are available that cache the results of the Web service calls that load the business object to display to the shopper.

JSP caching can provide a marginal additional benefit of not calling the JSP code. However, the JSP cache key is not granular, and any changes to catalog or marketing data requires all marketing JSP snippets to be cleared from the cache in order to pick up the latest data. It also requires manual configuration for each e-Marketing Spot in both the cachespec and the EMarketingSpotInvocationList.xml file.

Two options are provided to provide better runtime performance regarding the recording of user behavior data. The first option is to only keep the data in the user behavior cache, but do not persist the data to the database. This is the default behavior for the Recently Viewed Categories and Products, but can be configured for any user behavior data recording. The second option is to have the user behavior data persisted to the database in batch mode. Once the configured batch size is reached, then the data is persisted in a JDBC™ batch update call.

The References page at the end of this presentation provides a link where you can access the details for each caching method.

IBM

Problem determination

- Same trace options as V6
  - ▸ SensorEventListener trace is helpful
- Other things to check
  - ▸ Configuration
  - ▸ Scheduled jobs
  - ▸ Database tables

8

© 2009 IBM Corporation

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 discussed in this presentation 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.

IBM

Sample problem scenarios

- Activity is not triggered
    - ▸ Config: SensorEventListener, Repeatable flag
    - ▸ Scheduler: SendMarketingTriggers
    - ▸ Related DB tables: DMTRIGLSTN, DMTRIGSND
- User behavior not recognized
    - ▸ Config: Persistent session ID, personalization ID, SensorEventListener

9

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 overloaded. To confirm that the trigger is actually registered, check DMTRIGLSTN and to confirm trigger events are being recognized, check DMTRIGSND.

When user behavior is not recognized 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 scenarios 2

- User behavior not captured
  - ▸ Config: wc-admin-component.xml
  - ▸ Scheduler: SaveMarketingStatistics
  - ▸ Related DB tables: DMUSERBHVR

- Shopper not added to member group
  - ▸ Config: Management Center or MRRGRPCOND, Persistent session ID, personalization ID
  - ▸ Related DB table: DMMBRGRPPZN

10

© 2009 IBM Corporation

The settings for which user behaviors to capture 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.

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.

Summary

- Configuration

- Problem determination

This presentation introduced multi-channel precision marketing configuration and problem determination steps.

References

- **Testing Web and Dialog activities**
  - http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/tasks/tsbtestsupert.htm
- **WebSphere Commerce configuration file**
  - http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/tasks/tsbenable.htm
- **Marketing configuration file (includes cache info)**
  - http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center_customization.doc/tasks/tsbwcadmincomcont.htm
- **Scheduling marketing jobs**
  - http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.admin.doc/tasks/tsbschedsvcsov.htm
- **Improving marketing performance using caching**
  - http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.admin.doc/tasks/tdcmarcaccont.htm

This slide contains some useful references for multi-channel precision marketing administration in version 7.

Feedback

Your feedback is valuable

You can help improve the quality of IBM Education Assistant content to better meet your needs by providing feedback.

- Did you find this module useful?
- Did it help you solve a problem or answer a question?
- Do you have suggestions for improvements?

Click to send e-mail feedback:

mailto:iea@us.ibm.com?subject=Feedback_about_WCS70_PrecisionMarketingStoreAdmin.ppt

This module is also available in PDF format at: ../WCS70_PrecisionMarketingStoreAdmin.pdf

13

You can help improve the quality of IBM Education Assistant content by providing feedback.

Trademarks, copyrights, and disclaimers

IBM, the IBM logo, ibm.com, and the following terms are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both:

WebSphere

If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of other IBM trademarks is available on the Web at "Copyright and trademark information" at http://www.ibm.com/legal/copytrade.shtml

JDBC, JSP, and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.

Product data has been reviewed for accuracy as of the date of initial publication. Product data is subject to change without notice. This document could include technical inaccuracies or typographical errors. IBM may make improvements or changes in the products or programs described herein at any time without notice. Any statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. References in this document to IBM products, programs, or services does not imply that IBM intends to make such products, programs or services available in all countries in which IBM operates or does business. Any reference to an IBM Program Product in this document is not intended to state or imply that only that program product may be used. Any functionally equivalent program, that does not infringe IBM's intellectual property rights, may be used instead.

THE INFORMATION PROVIDED IN THIS DOCUMENT IS DISTRIBUTED "AS IS" WITHOUT ANY WARRANTY, EITHER EXPRESS OR IMPLIED. IBM EXPRESSLY DISCLAIMS ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT. IBM shall have no responsibility to update this information. IBM products are warranted, if at all, according to the terms and conditions of the agreements (for example, IBM Customer Agreement, Statement of Limited Warranty, International Program License Agreement, etc.) under which they are provided. Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products in connection with this publication and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products.

IBM makes no representations or warranties, express or implied, regarding non-IBM products and services.

The provision of the information contained herein is not intended to, and does not, grant any right or license under any IBM patents or copyrights. Inquiries regarding patent or copyright licenses should be made, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

© Copyright International Business Machines Corporation 2009. All rights reserved.

Note to U.S. Government Users - Documentation related to restricted rights-Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract and IBM Corp.