WebSphere Commerce V7 Feature Pack 3
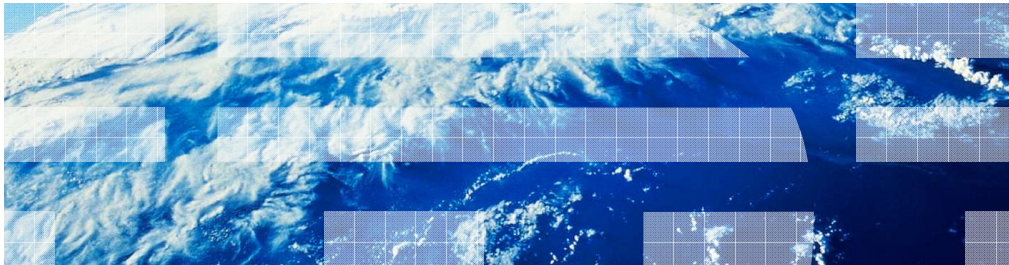
Coremetrics Intelligent Offer enhancements overview

This presentation provides an overview of the Coremetrics Intelligent Offer integration enhancements in WebSphere® Commerce Version 7 feature pack 3.

Table of contents

- Coremetrics Intelligent Offer Integration Review
- Configuration
- Coremetrics Intelligent Offer enhancements in feature pack 3

Coremetrics Intelligent Offer enhancements overview

This presentation focuses on the enhancements to the Coremetrics Intelligent Offer integration in feature pack 3. It will start with a quick review of the Coremetrics Intelligent Offer enhancements introduced in feature pack 2, then it will take you through the configuration steps necessary to enable the enhancements in feature pack 3. Next, the presentation will take you through the major areas of enhancements in more detail.
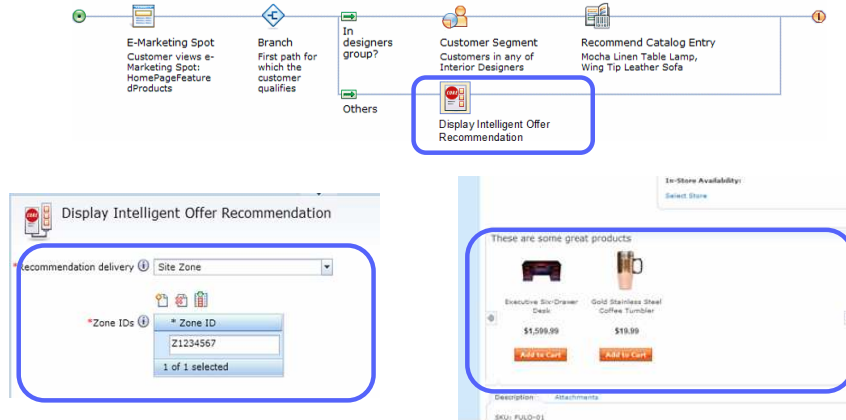
Coremetrics Intelligent Offer integration review

- Provide integration between WebSphere Commerce and Coremetrics Intelligent Offer
- Intelligent Offer (IO) provides two methods of returning recommendations:
  - Dynamic recommendations – real time call to Coremetrics to provide personalized recommendations
  - Flat file recommendations – import fixed list of recommendations from Coremetrics to deliver static recommendations

The solution was introduced in WebSphere Commerce V7 feature pack 2 with the goal to provide a closer integration between WebSphere Commerce and the Coremetrics Intelligent Offer (IO). Intelligent Offer provides two methods of returning recommendations and there are ways to make use of each of these recommendations in WebSphere Commerce. Dynamic recommendations are real time call from storefront to Coremetrics to provide personalized product recommendations. Flat File Recommendations are a fixed list of product recommendations (merchandising association table) that can be imported to WebSphere Commerce and used to deliver static product recommendations.

Dynamic recommendations

- Create in Coremetrics Intelligent Offer tools
  - Offer
  - Recommendation Plan – targeting rules, fallback rules
  - Zone – Area on web page to display recommendations
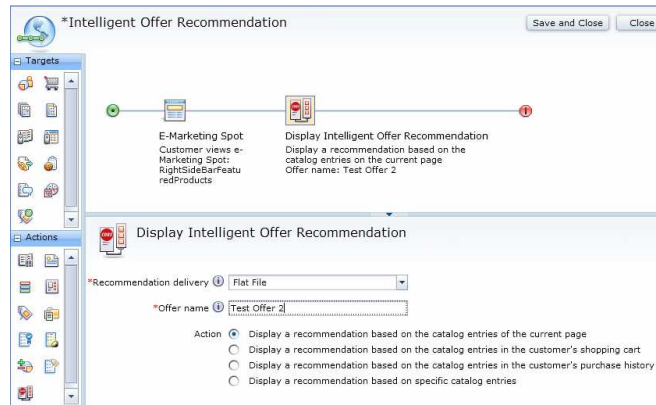- New action in marketing tool - Display Intelligent Offer Recommendation action

In order to create a dynamic recommendation, you will first need to create an offer, recommendation plan and a zone in the Coremetrics Intelligent Offer tools. Coremetrics will then create a set of recommendations based on the data and send it to the content delivery network. You can then modify the WebSphere Commerce store JSP pages to call Coremetrics to return the recommendations. Here is an example of how the IO recommendation can be displayed. There is a new action in the marketing tool to allow you to specify when and where to display the IO recommendation. You can also choose whether the recommendation delivery is flat file or dynamic. Here is the resulting e-marketing spot on the storefront. The title of recommendation area is the Zone Header Text from Recommendation Plan.

Flat file recommendation

- A scheduled job is required to process IO recommendation flat file
- The job will perform the actions:
  - Create a new entry in the MASSOCTYPE table
  - Delete existing merchandising associations in the store for specified offer
  - Call the catalog data load to import the merchandising associations

Coremetrics Intelligent Offer enhancements overview

To use flat file recommendations, you need to create an offer in Coremetrics. You do not need a recommendation plan or zones for flat file recommendations. Coremetrics will analyze the data and create a set of recommendations and these are then sent through FTP on a scheduled basis. WebSphere Commerce provides a mapping that takes the flat file and uses the Catalog data load utility to import the recommendations as Merchandising Associations. Then these merchandising associations can be returned to the storefront through the Display Intelligent Offer Recommendation action. You need to make sure to enter the Offer name as it is written in the text file. The maximum length of the offer name is 32 characters. For every offer you create in Coremetrics, it will generate a new flat file. You also need to specify what catalog entries you want to base the display of Intelligent Offer product recommendations on. The available options are shown in the screen capture here. A scheduled job is required to process the IO recommendation flat file. The command should be set up to run in the store where the associations are imported. If necessary, the command will create a new entry in the merchandising association type database table, or delete the existing merchandising associations in the store for the specified offer. Then it will call the catalog data load to import the merchandising associations.

CIO enhancement objectives in V7 FEP3

- Enhance Coremetrics Intelligent Offer integration from V7 FEP2 to simplify the process
  – New store function for Intelligent Offer integration
  – Include Intelligent Offer store front assets in MadisonsEnhancements SAR and EliteEnhancements SAR
  – Display default product recommendations defined in eMarketing Spot when no recommendations returned
  – Record status of IntelligentOffer flat file import
- Provide data extract utility for Intelligent Offer

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In feature pack 3, the goal is to enhance the integration introduced in feature pack 2 by simplifying the process of configuring and enabling the features. There is now a new store function to enable the Intelligent Offer integration, and starter stores now contain e-marketing spots to display the dynamic recommendations from Coremetrics IO on store pages. Default product recommendations are displayed in the e-spots when nothing is returned from Coremetrics. Also, flat file import status will now be recorded in the database. The next slides go into more detail of these new features.

Enabling Coremetrics Intelligent Offer

- STEP 1: Apply FP3, Install FEP3, Enable store-enhancements, Publish store and enhancements sar files
- STEP 2: Enable Coremetrics Integration
  - Configure biConfig.xml file – Required only if store not already setup for Coremetrics
- STEP 3: Selecting the Coremetrics Intelligent Offer store function in Store Management Tool

- Information center

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.Coremetrics.doc/refs/rmt_intofferfep3_roadmap.htm

Coremetrics Intelligent Offer enhancements overview

In order to make use of all the Coremetrics Intelligent Offer enhancements, you need to perform these steps. First, you need to install WebSphere Commerce Version 7 feature pack 3 to install the integration software for Coremetrics Intelligent Offer. Then you need to run the enablement scripts for the feature pack 3 store enhancements feature so that the Intelligent Offer integration software is activated and ready for use. If your store is not already set up to communicate with Coremetrics, you must configure settings in the biConfig.xml file to enable Coremetrics integration. To display e-marketing spots that support dynamic recommendations for Coremetrics Intelligent Offer in the Madisons and Elite starter stores, you must enable an option in the Store Management tool in the Management Center.

New store function for Intelligent Offer integration

- Enable Analytics Integration
  – Store function introduced in V7 FEP2 for CIO integration
- Enable Intelligent Offer Integration
  – New store function in Store Management tool
  – Enable to use CIO for store
  – Dependent on Analytics Integration option

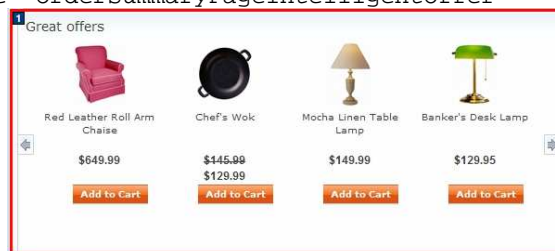Select the options that customers can use to change Analytics feature in your store:

Enable Analytics ⓘ ☐
Integration

Enable Intelligent Offer ⓘ ☐
Integration

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To display e-marketing spots that support dynamic recommendations for Coremetrics Intelligent Offer in the Madisons and Elite starter stores, you must enable an option in the Store Management tool in the Management Center. In the Store Management tool, select the store you want to add e-marketing spots for Coremetrics Intelligent Offer dynamic recommendations and click the Analytics tab. Select both the Enable Analytics integration check box and the Enable Coremetrics Intelligent Offer integration check box.

Intelligent Offer store front assets in MadisonsEnhancements SAR

- CIO store assets included as part of MadisonsEnhancements SAR and EliteEnhancements SAR
- Publishing the SAR
  - Automatically copies JSP and JavaScript files to locations when SAR is published
  - Create five eMarketingSpots to display IO Recommendations in
    - Store home page - `name="HomePageIntelligentOffer"`
    - Category display page - `name="CategoryPageIntelligentOffer"`
    - Product display page - `name="ProductPageIntelligentOffer"`
    - Shopping cart page - `name="ShoppingCartPageIntelligentOffer"`
    - Order confirmation page - `name="OrderSummaryPageIntelligentOffer"`
- Example: Product display page
  - CachedProductOnlyDisplay.jsp
  - ProductPageIntelligentOffer espot

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The Madisons starter store contains specialized e-marketing spots that can display dynamic recommendations from Coremetrics Intelligent Offer. Use the site flow and interactions to understand where the e-marketing spots are located on these five pages: home page, product details page, category page, shopping cart page, and checkout confirmation page.

The example shown here is the product details page. The CachedProductOnlyDisplay.jsp represents the area containing the product image, description, price, and options in the screen capture. The e-marketing spot for Coremetrics Intelligent Offer dynamic recommendations, ProductPageIntelligentOffer, is included in this JSP file. You might use this e-marketing spot to display dynamic recommendations for the product that the shopper is currently viewing.

Display default product recommendations

- V7 FEP2
  - No results in e-marketing spot if nothing is being recommended by CIO
- New feature to return default catentries
  - New flag `DM_ReturnDefaultContentOnly` added to `GetMarketingSpotDataCmdImpl` command
  - When set to `true` will return default catentries associated with e-marketing spot
  - Default flag set to `false`

Coremetrics Intelligent Offer enhancements overview

In feature pack 2, when nothing is recommended by Coremetrics Intelligent Offer, the e-marketing spot is empty and no results will display. In feature pack 3, you will see a new flag in the GetMarketingSpotDataCmdImpl command where when set to true a set of default catalog entries can be returned.

Record status of IntelligentOffer flat file import

- V7 FEP2:
  - Recommendation file import command run as a scheduled job
    - Status of each file import dumped into a log file
- In this release:
  - Status of each file import is recorded in a database tables UPLOADFILE and PROCESSFILE tables
    - UPLOADTYPE = "IntelligentOfferFlatFileImport"
    - Data load utility invoked by CIO will return meaningful error message stored in PROCESSINFO column of PROCESSFILE table
    - Examples of error messages:
      - The mandatory property Offer Name is missing in the file.
      - The mandatory property TargetPartNumber is missing in the file.
      - The mandatory property PartNumber is missing in the file.
  - ImportIntelligentOfferAssociationsCmd will only run files that had not been processed or failed to load
  - Flat File Import status is displayed in Management Center Catalogs tool

Coremetrics Intelligent Offer enhancements overview

The IntelligentOffer integration solution in feature pack 2 included a Recommendation file import command which reads the recommendation file provided by Coremetrics and loads them in the WebSphere Commerce database. The command is run as a scheduled job which can take the directory name or the file name as parameter. Currently the status of each file import is dumped into a log file which makes it difficult for you to analyze the problems in case of any error.

In this release, the status of each of the file imports is recorded in a database table. The details of the scheduled job can be seen from the Intelligent Offer Imports folder in the Catalogs tool. There are meaningful error messages such as the offer name or part number is missing. The behavior of ImportIntelligentOfferAssociationsCmd is modified to upload only those files which have not been run earlier and files which failed to load data. The UPLOADFILE table is used to identify the files which are not run and the STATUS in PROCESSFILE table for the files which failed.

Viewing the flat file import status

- Folder shows up only if flat file import is scheduled

Intelligent Offer Import folder

In the WebSphere Commerce Management Center Catalogs tool, you can view the status of flat file imports from the Intelligent Offer Imports folder. The folder is shown if a flat file import is scheduled or completed.

Section

Intelligent Offer Data Extraction Utility

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Next, the presentation will show the utility to extract catalog data in the format that Coremetrics requires to support dynamic recommendations.

Intelligent Offer data extraction utility

- Command-line utility to create Enterprise Product Report data for Coremetrics
- Generates two CSV file types for your catalog data (for each Coremetrics client ID)
  - EPCMF (Enterprise Product Content Management File)
    - Contains data representing buyable products, pre-built kits, and dynamic kits for a store
    - Specifies product relationships to categories
  - ECDF (Enterprise Category Definition File)
    - Contains data representing the master catalog category hierarchies for a store
- Supports only DB2® and Oracle databases for production
- Derby in development environment support is provided for customization purposes only

The Intelligent Offer data extraction utility is a command-line utility you can use to create the Enterprise Product Report (EPR) data that Coremetrics requires. The utility extracts catalog data from your database and generates ECDF and EPCMF files in the correct format to load into Coremetrics. You can provide these two files to Coremetrics on a regular basis for processing Intelligent Offer recommendations. The Enterprise Product Content Management File (EPCMF) contains data representing catalog entries, that is, buyable products, pre-built kits, and dynamic kits for a store. The Enterprise Category Definition File (ECDF) contains data representing the master catalog category hierarchies for a store.

The Intelligent Offer data extraction utility is not intended to be run in the development environment. Support is provided in the development environment for customization purposes only, for example, when you are testing changes to the business object configuration file to include custom catalog entry attributes for the EPCMF file.

The Intelligent Offer data extraction utility supports only the DB2 Universal Database™ and the Oracle Database. Other database types are not supported.

Here are samples of the catalog entry data that the utility extracts for the EPCMF file and the catalog hierarchy data that the utility extracts for the ECDF file.

Configuration files

- wc-dataextract.xml
  – Main configuration file when running the utility
  – Specifies the paths to the environment configuration file and to the business object configuration file.
- wc-dataextract-env.xml
  – Environment configuration file
  – Contains business context information that you must configure before running the utility, example: langId and currency
- Business object configuration file
  – wc-dataextract-catalog-entry.xml - extract catalog entry data for the EPCMF file
  – wc-dataextract-catalog-group.xml - extract category data for the ECDF file

The Intelligent Offer data extraction utility uses three types of configuration files.

wc-dataextract.xml is the main configuration file that you must point to when running the utility. This file specifies the paths to the environment configuration file and to the business object configuration file.

wc-dataextract-env.xml is the environment configuration file. It contains some business context information that you must configure before running the utility, such as the store identifier and master catalog identifier.

wc-dataextract-business_object.xml is the business object configuration file. For this utility, you need two versions of this file. wc-dataextract-catalog-entry.xml is used to extract catalog entry data for the EPCMF file. wc-dataextract-catalog-group.xml is used to extract category data for the ECDF file.

Business object configuration files contain business context information. Data mappings are required to transform WebSphere Commerce business objects to the data that is written to columns in the EPCMF or ECDF file. The EPCMF file supports up to 10 customer-defined catalog entry attributes. Definitions for the order that the utility writes the data to the columns in the file is in the configuration file too. You should be able to use these definitions without modification.

Configure the utility

- Create new directory structure and copy sample configuration files
  - Samples: <WC_Installdir>/components/foundation/samples/DataExtract/Catalog/
  - New directory: <WC_Installdir>/samples/DataExtract/Catalog

- Configure wc-dataextract-env.xml
  - langId
  - Currency

- Verify the main configuration file wc-dataextract.xml

- Prepare wc-dataextract-catalog-entry.xml file for EPCMF data
  - clientId
  - storeId
  - Username
  - Password

- Prepare wc-dataextract-catalog-group.xml file for ECDF data
  - clientId
  - storeId
  - Username
  - Password

Coremetrics Intelligent Offer enhancements overview

Sample configuration files are provided, but you must update the samples with configuration information specific to your site and environment. These configuration files are based on the data load utility configuration files, but they include some extensions. You must copy the sample configuration files to the correct location and then configure certain environment and business context parameters in the files.

First, create the directory structure shown in the slide to contain the configuration files for the utility. Copy samples into this directory. Then open the wc-dataextract-env.xml and configure the language setting. Specify language ID for which you want to extract data, for example, -1 for English. Specify the currency code for the currency in which you want prices retrieved for the catalog entries, for example, USD. Next, prepare the business object configuration file for EPCMF data by opening the wc-dataextract-catalog-entry.xml file, and configure the settings. Specify your Coremetrics client ID and the store ID for the store you are extracting data from, for example, 10101. The storeId is the store entity ID as defined in the STORE_ID column of the STORE table. Then, prepare the business object configuration file for ECDF data by opening the wc-dataextract-catalog-group.xml file, and configure the same settings as described in the step above. Save and close the file.

Running the utility

- Call utility with command:
  - `<WC_InstallDir>/bin/dataextract.bat <path_to_wc-dataextract.xml>`
- View generated EPCMF and ECDF files
  - Default location: `<WC_InstallDir>/bin/`
  - Syntax: `<Coremetrics_client_ID>.epcmf.csv` and `<Coremetrics_client_ID>.ecdf.csv`
    - EX: 12345.epcmf.csv and 12345.ecdf.csv
- Log files
  - `<WC_InstallDir>/logs/dataextract.log`

Run the Intelligent Offer data extraction utility from a command-line interface. The command generates both the EPCMF file and ECDF file at the same time. Run the command dataextract.bat from the bin directory with the path to the wc-dataextract.xml file. View the EPCMF and ECDF files that the utility creates. Note the location of where the files are generated and where you can find the log files.

Summary

- Coremetrics Intelligent Offer Integration review
- Configuration
- Coremetrics Intelligent Offer enhancements in feature pack 3

Coremetrics Intelligent Offer enhancements overview

In summary, the presentation reviewed the Coremetrics intelligent Offer integration introduced in feature pack 2 before going over the configuration steps to make use of the enhancements introduced in feature pack 3. The presentation then went over each area of enhancement in detail.

References

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http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.Coremetrics.doc/refs/rmtintofferstoreflow.htm

- Display Intelligent Offer Recommendation

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/concepts/csbactdispintelofferrec.htm

- Selecting the Coremetrics Intelligent Offer store function

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.Coremetrics.doc/tasks/tmtintofferstorefunction.htm

- Viewing flat file recommendation import status

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- Intelligent Offer Data Extraction Utility

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