



## CRM Marketing Automation: Instant Analytics – Or Is It?

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Companies striving to enhance customer loyalty, improve customer satisfaction and promote share of wallet are increasingly turning to customer relationship management (CRM) analytics. Royal Bank of Canada (RBC), the largest bank in Canada with more than 10 million customers, is a well-publicized example of CRM analytics in action.<sup>1</sup> RBC strives to provide a consistent but tailored customer experience across all points of contact while also optimizing the profitability of each relationship. Sophisticated analytics shape and drive the CRM strategy for the bank. A comprehensive data warehouse, a well stocked analytics department populated with researchers and statisticians, and a plethora of segmentation and predictive behavioral models provide the analysis backbone for strategic decision making.

Of course, transforming analysis into action is a critical step in any organization's quest to tailor customer contacts and improve satisfaction. Enter the CRM vendor solutions. Sometimes referred to as front-office applications, these CRM solutions strive to maximize customer relationships by automating the sales and service process. The goal of these

extremely popular systems is to provide integrated, multichannel customer management applications. The Aberdeen Group reports front-office solution market growth at 30 percent per year with projected expenditures in 2003 reaching \$24 billion.<sup>2</sup>

There is no question that front-office solutions are important components in an integrated customer information environment. In their role as customer interaction managers, they are attractive analysis-to-action facilitators because they deliver CRM analytic results to all customer touchpoints. The CRM vendors realize this, and they also realize the growing potential of the CRM analytics marketplace. To address this market segment, many vendors now offer marketing automation (MA) applications as add-on modules that can be integrated into the customer service and sales force automation components of their application suites.

It is not uncommon for organizations contemplating a front-office CRM technology purchase to view the MA component of these systems as a silver bullet – one that eliminates the need to invest in a data warehouse or other components of the Corporate Information Factory. Why build a data warehouse when you can achieve integrated sales, service and marketing in a single application suite? This mis-

conception is both easy to fall into and dangerous.

Generating the sophisticated CRM analyses that drive organizations such as RBC requires firepower that can only be delivered through an integrated enterprise business intelligence environment – one that includes a data warehouse and data mining toolsets.

In this article, we examine the marketing automation capabilities offered by front-office solutions vendors addressing the CRM analytics space. We highlight the benefits that these capabilities can bring to your organization. We also discuss the need to implement these capabilities within a conceptual architecture, such as the Corporate Information Factory, to ensure that you can evolve your marketing and analysis capabilities to shape your full enterprise CRM strategies.

### Marketing Automation – The CRM Vendor Solutions

The components offered in a front-office application suite fall into three general categories:

- **Customer Service and Support:** These applications automate the service and support functions, including analytics, and they provide workflow engines that facilitate efficient problem and inquiry escalation, tracking and resolution.

They provide customizable, dynamic scripting capabilities for the customer service representatives as well as the capability to record customer responses in a shared contact repository. In a call center environment, they also integrate with (or provide) computer telephony integration (CTI) capabilities that allow automatic call routing and automatic screen pop-ups containing customer and product information to agents' workstations as they are answering or initiating calls.

- **Sales Force Automation:** These are tools that automate the collection and distribution of all types of sales information. They allow for the design of sales teams based on defined criteria. Calendar management, activity management, sales reporting and forecasting, lead distribution, and tracking sales contacts with customers and prospects are some of the myriad of capabilities offered within these solutions. Many also provide access to internal and competitive product information as well as the automated collection and distribution over the Internet of relevant external information such as breaking industry news and customer-specific events. Sophisticated pricing and product configuration engines and third-party channel management capabilities are also available.
- **Marketing Automation:** These applications provide the ability to create automated marketing campaigns and track the results. Generating lists of customers to receive mailings or telemarketing calls, scheduling automatic or manual follow-up activities and receiving third-party lists for incorporation into the campaigns are all typical functions. Internet personalization tools are offered here to track behavior on a Web site and allow tailoring of the contact experience, or generation of specific cross-selling opportunities, based on this behavior. Inbound and outbound e-mail management capabilities are also becoming popular components of the marketing automation suites.

Let's take a closer look at the marketing automation component because it has been positioned as the solution for all CRM analytics.

### Campaign Management

Segmenting customers, generating targeted marketing campaigns for these segments and tracking results are important parts of CRM analysis. Integrated MA tools provide these capabilities and provide campaign offers and results directly to the customer sales and support processes. Incorporating offers and solicitations into the common contact repository and prompting contact agents to follow-up on campaigns can yield dramatic benefits. Some of the features provided are:

- Planning marketing activities and developing campaign hierarchies.
- Outlining marketing campaign objectives.
- Defining campaign success measurements.
- Coordinating multiple channels and event triggers to automate response actions.
- Building and testing sample campaigns on a subset of customers.
- Storing and reusing content from previous marketing campaigns.
- Measuring campaign effectiveness by linking directly to call center, front-line employees and sales force.
- Importing third-party target lists.
- Tracking fulfillments supplied to the client via each channel to avoid duplication and maximize effectiveness.
- Tracking customer inquiries related directly to campaigns.
- Tracking sales force closures related directly to campaigns.

### Internet Personalization

Personalization is the ability to track and respond to customers in an individualized fashion based upon their past contacts and behavior. The true value of personalization in CRM is when it extends beyond the Internet to encompass all customer contacts across the organization. By integrating personalization into the front-office applications, every contact with your customers can be well planned and

personalized. This is a good example of the acceleration of analytics into action. Features of personalization tools include:

- Collecting information on Internet site visits.
- Addressing customers who visit the site by name and remembering their preferences.
- Allowing visitors to customize content to suit their purposes.
- Showing customers specific content based on who they are and past behaviors.
- Offering specific products (on the Internet or over the phone) based on past behaviors.
- Allowing for the possibility of self-adjusting campaigns and offerings based on customer behavior.
- Integrating technologies and techniques for optimal customer understanding based on transaction history, demographic analysis and collected information.

### E-Mail Management

E-mail management capabilities are used in two ways in MA – inbound and outbound. Inbound e-mail management capabilities assist organizations in handling inbound inquiries from customers. While on the surface this would seem to be a purely service-oriented activity, organizations are linking these facilities to their personalization technologies and thus tuning the resulting communications on the basis of CRM analytics. Benefits of this can be quite high as it offers a chance to extend personalization techniques to multiple communication types. Outbound e-mail management capabilities provide the ability to construct and execute permission-based marketing campaigns (where the dialog has been started with a customer via e-mail communications) and are said to be up to 20 percent more successful than traditional direct marketing at a fraction of the cost. Features include:

- Automation of the targeting and sending of mass e-mails.
- Automation of mass e-mail responses.
- Use of decision engines to parse information from incoming e-mail correspondence.

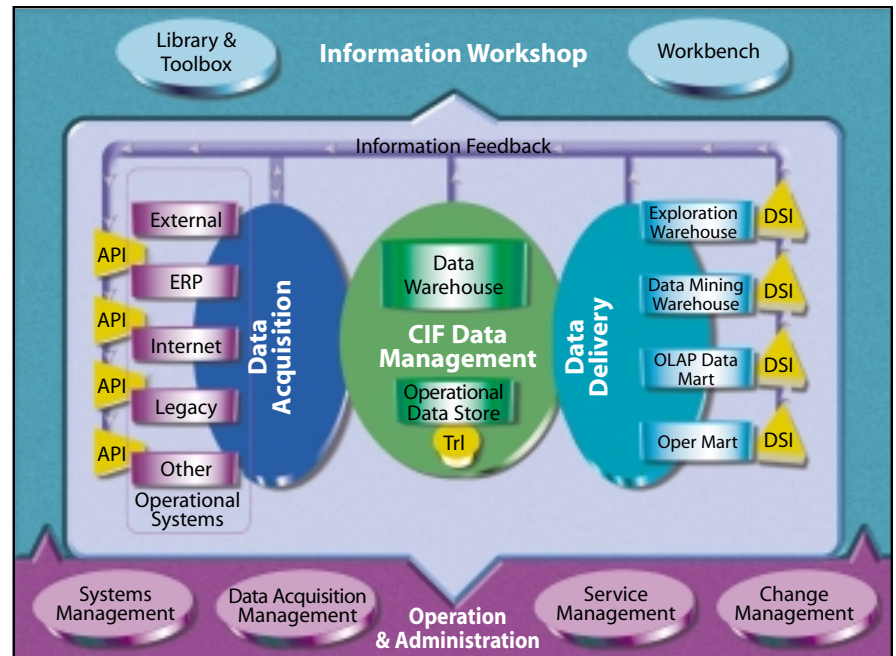
- Crafting responses to incoming e-mail without human intervention.

## Closing the Loop – Adopting an Architected Solution

Now that we understand the CRM analytic capabilities offered with MA solutions, what's the catch? When MA modules are implemented as an integrated, open part of an enterprise business intelligence environment, there may be no catch. The catch is the temptation to implement these front-office product suites and bypass the enterprise as a whole and the data warehouse specifically. While this automates certain types of marketing activities and integrates these activities to the front line, it lacks the depth, breadth and shareability of an architected data warehouse solution. The organization is deprived of the more sophisticated forms of CRM analytics, forming yet another departmental silo of analysis, furthering the very data mart chaos and inconsistency that the data warehouse is designed to prevent.

Let's examine the Corporate Information Factory (CIF) architecture to determine where the MA integration points should be. Figure 1 illustrates the CIF. As stated earlier, the CIF provides a high-level technology road map for organizations wishing to develop CRM initiatives. The CIF is a logical architecture whose purpose is to provide a framework for implementing integrated technology across all areas, all departments and all functions of an organization. Building a framework such as the CIF enables organizations to share customer information freely and distribute analytical results to all individuals in the organization that need them. The CIF consists of three primary types of CRM systems.

**Business Operations** are the core operational systems (billing systems, product or policy systems, call center and sales force automation systems, etc.) that run the day-to-day business processes in an organization. Information originates in these systems and flows through a data acquisition process into the rest of the CIF where it is consolidated and integrated for strategic and



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Figure 1: Corporate Information Factory

tactical decision making. Front-office solutions generally reside here as they facilitate the day-to-day sales and service processes.

**Business Intelligence** provides the capabilities required for the strategic decision making in the organization. Business intelligence consists of the data warehouse, data marts and associated analysis tools, and can provide the technology infrastructure and information necessary to manage the complex relationships and analytics required to understand CRM interactions. Properly architected, the MA components of the front-office applications would reside here.

**Business Management** enables organizations to act on the analytical results generated within business intelligence. Business management consists of the operational data store (ODS) and its associated transaction interfaces as well as the associated operational marts. Business management systems are subject-oriented, integrated, current-valued and supply a single point of access for information across the enterprise. An enterprise customer profiling system is a good example of a CRM business management function.

The primary integration point for the MA components is the data ware-

house contained in the business intelligence environment. The data warehouse is defined as a subject-oriented, integrated, time-variant, cleansed and non-volatile collection of data for strategic analysis. You can think of it as a big bucket of generic, detailed, enterprise-wide, static and historical data. The data warehouse can serve as the source of data for data marts and for the MA components (which are actually just another set of souped-up data marts). Unlike the data marts or MA components, the data in the data warehouse is not set up for a particular application or department.

The data warehouse consists of standardized, consistent pieces of data. By constructing the data warehouse in the most generic and flexible way possible, you can build just about any data mart for CRM analysis. You are only limited by your technology and the data that you can acquire from your operational systems.

- The data warehouse reflects the enterprise's view of data in terms of business rules and strategic requirements. Because the data in the warehouse is to be used for multiple CRM analytical purposes spanning multiple departments, it must accom-

modate and reinforce the enterprise's vision of its CRM initiative.

- It is optimized for flexibility. The data must not display a bias or prejudice toward any one kind of analytical processing. For example, if the data warehouse is designed using a data model that is prejudiced toward known data relationships or certain business processes, then analytical activities that search for unknown relationships are compromised or, in effect, eliminated.
- It provides detailed data for subsequent use by the data marts. Because the data warehouse must be the source for data marts containing aggregated and summarized data, exploration warehouses containing detailed data, data mining warehouses containing statistical samples of data and MA components which fall somewhere in between in terms of detail and history required, it must contain the proper level of detailed data to satisfy these very diverse requirements. The goal is for the data warehouse to have the "least common denominator" level of data for the data marts and the MA components. It must serve star schemas, cubes and flat files for statistical analyses, and subsets of data for ad hoc querying.


The Information Feedback loop, running across the top of Figure 1, is the other key component of the CIF

for integrating MA components. This is the set of processes that transmit the intelligence gained through usage of the strategic CIF components to appropriate data stores. This is the mechanism by which we push BI "out to the masses." It is also the mechanism by which we allow the MA components to receive information from the data warehouse and to feed information back into the data warehouse or on to the operational systems or ODS.

Examples abound of storing the *results* of BI analyses in operational systems such as the front-line applications. One such example is to store the results of a customer lifetime value (LTV) analysis – that is, the actual score given to each customer based on their calculated LTV to the enterprise. The numerical values generated from such an analysis can be stored in the front-office system and accessed by the MA components during the generation of campaigns or scripts for call center agents. Behavior toward each customer is altered based on the knowledge of the customer's LTV score. Higher valued customers may receive different campaign solicitations than those with a lower score.

Conversely, the solicitations generated by the MA components should also be transported via Information Feedback into the data warehouse. This allows all analytic applications in the organization to take advantage of the valuable information generated by

MA components.

Beware of vendor sales pitches that contain phrases such as "our MA module can drive your entire marketing process," or "MA provides a direct link between CRM analytics and your customer contact points." While the capabilities embodied in the MA modules do provide significant value, they do not provide sufficient sophisticated analysis capabilities to be your sole vehicle for all CRM analytics. Instead, bypass the hype, implement MA capabilities that make sense for your organization and ensure that MA modules use the information feedback mechanism to feed information to and receive information from the data warehouse or operational systems. Staying true to an architecture such as the CIF will provide you with the guidelines necessary to build the integrated customer information environment required to drive your CRM strategies. 

#### References:

1. For more information on The Royal Bank, see their Web site at [www.royalbank.com](http://www.royalbank.com) or refer to the CRM case study "The Analytics that Power Royal Bank" by Kathleen Khirallah of The TowerGroup, January 2001.
2. "What's Next in CRM – The Learning Relationship." The Aberdeen Group, November 2001.

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