The Architecture of a CRM System in the Context of Internet Technologies

Gavrilă A.¹, Băbeanu D.², Boldeanu D.³

¹Academy of Economic Studies, Faculty of Accounting and Management Information Systems, galex@ase.ro

² Academy of Economic Studies, Faculty of Accounting and Management Information Systems, delia@cig.ase.ro

³ Academy of Economic Studies, Faculty of Accounting and Management Information Systems, boldeanud@mailcig.ase.ro

Abstract. CRM (Customer Relationship Management) is defined as the sum of business processes that an organization needs to execute in order to identify, choose, buy, develop and retain its clients. The extremely fast evolution and development of the Internet, as a new channel of communication also as an opportunity to effective fast dissemination led to the fundamental modification of the relations with clients. The Internet shifted the ability to control the market from seller to buyers. The new client that comed from the Internet is looking mainly for 24x7 access to seller's information and resources. The Internet client wants right context and ease of navigation with effective search tools. Ultimately, he is looking for a personalised buying experience, defined by ease of opening a personal account, ability to review his shopping cart in real time. The current article is aiming to present the current architecture designed to fulfil all this requirements.

Keywords: CRM, Internet, Client, Supplier.

1 Introduction

The dynamics of the relationship with customers was fundamentally modified with the advent of the Internet as a new type of communications and selling channel. This shifted the market control from the sellers to buyers, the latter being able to effectively access competitive offers without any time or distance constraints. While in the traditional selling system sellers had a tremendous advantage over buyers due to better product knowledge, actual costs and availability, nowadays, buyers have in turn basically unlimited access to all this information.

Up until not long ago, each commercial entity had its own distribution channel. By controlling this, the firm also was defining the main way to interact with the client, thus, for example, the client could only purchase a TV set only from a "brick-and-mortar" store and only during its working hours. Similarly, a car could only have been bought only from a dealer showroom through one of its sales associates and only during their hours. In conclusion, the classic CRM business model was characterized by only one distribution channel. It was fairly simple, well defined and based mostly on face-to-face interaction with the client.

What is the Internet buyer looking for? Besides 24x7 access to seller's offers and info (technical data, prices, order tracking, warranty, technical assistance data base), the Internet buyer is requiring complete disclosure placed in correct context, easily accessible with powerful, yet simple to follow

search tools. Client wants access to a wide range of product and services. Last but not least, client requires a personalized buying experience: a personal "welcome" to the virtual store, the ability to create an individual account where personal data would be stored safely for later purchases, also to track purchase history in real time. Also, client would prefer to freely choose between available distribution channels: Web, storefront, call center and back the Web, all the time being able to be recognized and treated the same way.

As a result, a selling outlet's only choice is to do business in the way the client demands it: anywhere, anytime, in any language and in any currency.

2 How CRM would work

Proper management or client relationship requires two major related objectives:

- \checkmark First of all, to be able to grant the organization and its employees involved in customer service, a complete and unique approach regarding each client no matter where he/she is located in the buying cycle;
- \blacksquare Secondly, to offer the client a complete and unique vision of the company and its extended channels.

Remarkably, in this context, the majority of companies in this day and age, are still product oriented and not client oriented. Accordingly, the same client would have to deal with multiple sales associates, call lots of phone numbers, etc, a totally unacceptable fact in the Internet age.

One interesting aspect of the CRM e-business process is constituted by the fast increase of repeat business from loyal customers. The costs of acquiring a new client can be 5 to 10 times higher than retaining an existing client. Of these costs, we stress on expenses associated with marketing towards new clients, recording them in company's data base and introducing them to its products and services.

Among the best software applications supporting the CRM model above, are offerings by companies like Siebel¹ and Clarify. A basic CRM model, centered mainly on sales is offered by SalesForce.com and UpShot.com².

A modern business process should be able to offer sales professionals automated tools to manage all aspects related to sales-prospecting, manage opportunities, presenting offers and sales reports.

System must offer a clear snap-shot of each client, thus, sales representative would be able to instantly access the customer account (previous sales, pending orders, sales history, service issues, profitability, buying habits). Sales representative could, for example, avoid unpleasant situations where he needs to adjust the price in order to appease an unhappy client.

A major objective of the modern CRM model is to assist the sales rep. in quickly identify the profitable clients and dedicate more efforts in this direction rather than on lesser attractive prospects.

The automation of the selling process must happen all the selling channels (TV shopping ads, direct sales, storefront, Web...), no matter what device is used (handheld, laptop, mobile phone).

A significant difference of the Internet transaction experience is the personalization of the sellingbuying process. Based on specific qualifying questions, the software determines client's profile and offers a personalized account customized to his or her preferences and wish list. Some sophisticated sites also offer a "personalizing engine" based on various techniques: rule-driven personalization, collaborative filtering or instantaneous personalization.

The product catalog also became a sophisticated instrument offering instant access to countless combinations of prices and features according to buyer's preferences. This way, potential cross-

¹ <u>www.siebel.com</u> – Now purchased by and integrated in Oracle

² UpShot.com, also now is acquired by Oracle

selling or up-selling becomes possible.

3 Implementing a CRM system.

Customer Relationship Manager is a company wide strategy based on acquiring and maintaining a long term relation with its clients. Although a lot of commercial software packages are available on the market, CRM is not a technology in itself, but more likely, a shift in the whole corporate philosophy with accent on the client.

A successful CRM strategy in not focused solely on installing and integrating a software package to instantaneously update the existing situation. Changes should happen at all levels including corporate policy and procedures, employee training, management of data systems, all to be repositioned and centered towards the client.

To be effective, CRM processes should be integrated within marketing, selling and client relations policies. A good CRM should offer:

- ☑ Identifying clients' key success factors;
- \square Creating a client-centered culture;
- \blacksquare Adopting client based decisions;
- \square Developing new procedures to benefit the client;
- \blacksquare Defining a questionnaire to be address with the client in order to solve a problem;
- \blacksquare Recommending a procedure to deal with a client's complaint about a product;
- \blacksquare Tracking all steps of the sale.

While implementing a CRM model, one must take into account company's profile, also relevant aspects pertaining to its field, information to be related to customers, tracking orders and history, ultimately reducing redundancy and eliminating superfluous data.

4 Architecture of a CRM system

Usually, the architecture of a CRM system is structured on three components¹:

- ☑ Operational CRM dealing with data base management and client relations;
- Analytical CRM analyzing and improving client relations;
- Collaborative CRM facilitating interaction with clients on all communication channels.

4.1 Operational CRM

This component of the CRM is dealing with process management relating to direct contact with clients: sales, marketing and service. Results of these processes are directed to the staff members in charge, also being offered necessary info to run these operations and the ability to store references for later usage.

Benefits include:

¹ <u>http://en.wikipedia.org/wiki/Customer_Relationship_Management</u>

- \blacksquare Allowing personalized and effective marketing, sales and marketing via multiple collaboration channels;
- ✓ Offering a 360 degrees image on the client during the interaction;
- \blacksquare Sales and service departments could access transactions history relating to customer's interaction with the company not matter when it happened and what associate assisted at certain times.

According to the analysts from Gartner Group, the operational side of a CRM system typically deals in three areas of the business:

- ☑ Sales force automation SFA: dealing with automation of some of the critical functions of sales force management, contract management, predictions, sales administration, tracking preferences, buying habit and demographics of clients. SFA instruments are designed to ultimately increase team productivity;
- ✓ Customer service and support CSS: integrates product info requests, complaints, returns and warranty inception. CSS applications allow effective management of a large volume of such event.
- ✓ Enterprise marketing automation EMA: offers info regarding business environment including the competition, industry trends, etc. The scope of EMA is to increase efficiency of marketing campaigns based on demographic analysis and segmentation on interest field of the campaign.

4.2. Analytical CRM

Within Analytical CRM, data gathered by the Operational CRM, or other sources, is analyzed in order to separate clients in several categories, or to identify ways to improve relations with clients. Typically, client analysis could lead to personalized campaigns centered on certain types of clients. Examples of such campaigns:

- \blacksquare Informing campaigns: offering personalized info on a regular basis
- Updating campaigns modifying customer info

Data collection and analysis is perceived as a continuous and repetitive activity. Ideally, business decisions are modified in real time based on feedback data. That is why, the most successful Analytical CRMs are the ones benefiting from data bases to accessed in order to obtain all necessary info.

4.3. Collaborative CRM

This type of CRM facilitates interaction between company and its clients on all existing communication channels (direct communication, direct mailings, email, fax, telephone, Web), and helps with coordination between all employee teams and communication channels. It is a solution grouping human resources, processes and data in such way that the final result is better customer service, thus creating a loyal customer base.

Some benefits of Collaborative CRM:

- ☑ Increasing the efficiency of interaction with clients via all communication media
- Allowing client interaction via the Web, translated into reducing communication costs.
- Integrating call-centers, allowing client interaction via multiple channels.
- ☑ Integrating vision on client while interaction happens at transactional level.

The e-business system centered on the client would also need to allow a completely automated marketing policy, offering marketing specialists the ability to execute campaigns based on actual consistent data.

Great emphasis should be put on integrating the marketing process with business data management process (Business Intelligence). Accordingly, there is a need for sophisticated analytical techniques in order to dissect and classify market data. A consequence of these techniques is the unprecedented refinement of the possibilities of segmenting a market and the creation of unique clients profiles based on data furnished by anonymous clients.

Modern systems offer such extensive possibilities to track the objective effects of promotional campaigns and automated integration of data collected in the unified storage area of the company.

5 References

CRM Overview, (2004), *Web page*, Retrieved from http://guide.darwinmag.com/technology/enterprise/crm/index.html Gavrilă, A. (2006). Integrarea sistemelor informatice de gestiune în Internet, Teză de Doctorat

Gavrilă, A. (2006), Tipuri de autentificare a utilizatorilor pe Internet, Revista BitEconomic, (www.biteconomic.ro), nr.10 Gavrilă, A. (2004), Folosirea XML in afacerile electronice, Simpozion Facultatea de Contabilitate și Informatică de Gestiune

Gavrilă, A. (2002), Semnătura electronică, Revista ASE – Contabilitate și Informatică de Gestiune, nr.1 Gavrilă, A. (2002), Modalități de securizare a transmisiilor de date în Comerțul Electronic, Simpozion Facultatea de

Informatică de Gestiune

Năstase F., Năstase P., (2002), Tehnologia aplicațiilor web XML, DOM, ASP, București: Ed. Economică

Transaction Processing Systems, (2006), Web page, Retrieved from http://www.radpage.com/heitml2.1/features/transact.hei