
Understanding CRM

Three-quarters of businesses do not know what CRM is, and many embark on CRM implementations without any clear idea of the business objectives. But CRM projects can potentially impact every other system in the enterprise, and vary from as little as two weeks to as long as two years, a full understanding of both CRM and the business's requirements are essential to success.

By Andrew Ward

Vendors of CRM (Customer Relationship Management) systems started out from many different backgrounds, and this is part of the reason for the common confusion surrounding what CRM actually is. If a vendor that was one day selling a call centre, helpdesk or SFA (Sales Force Automation) system then expands its offering and re-labels it as CRM, it is not surprising that there are people who believe the CRM is a call centre, helpdesk or SFA system. Furthermore, the nature of CRM systems has changed. Just as ERP (Enterprise Resource Planning) systems rarely actually do any effective planning, CRM systems often didn't do any management.

To manage the customer relationship implies playing a supervisory and operational role controlling the three stages of customer interaction with the enterprise: before the sale (marketing); the sale process itself; and servicing. However, CRM's initial role was often merely an adjunct to some or all of these processes.

Early systems provided the CSA (Customer Service Agent) with full information regarding the customer's interactions with the company - accounting transactions, details of sales calls, and service events. The goal of these systems was to ensure that whoever in the organisation was dealing with the customer - whether in accounts, sales or after-sales service - they would be as fully informed as possible with regard to the customer's entire relationship with the company. Now, CRM systems have been extended to ensure that whatever the interaction touchpoint - sales representative, post, fax, telephone or automated telephone, mobile and Internet interfaces - the customer experience would be consistent.

For a short time, the term eCRM (electronic Customer Relationship Management) was in fashion. This merely describes how CRM systems have been enhanced to make the customer's history available directly to customers themselves, usually over the Internet but possibly also via an IVR (Interactive Voice Response) system. Thus, whether the customer interaction with the company is via a human agent or directly, as much information as possible is available to help ensure the transaction is a success.

System Architecture

So that a CRM system can make available information regarding marketing, sales and service activities, it clearly needs access to a lot of data from different sources. These could include transactional data from financial systems and enterprise applications, service and support call information from helpdesk systems, marketing data, and information from sales force automation systems.

However, these systems were traditionally designed from a department (or occasionally a product) point of view. The demands of the modern business environment dictate that companies now look at their operations from a customer perspective, and it's precisely this problem that CRM systems are trying to address. Because of the product-centric way that existing systems and most other software is designed, CRM ends up with a very complex task.

Some of the necessary data will reside within the CRM system itself. Because of their origins, CRM systems are not usually merely management systems but actually play an active role in one or more types of customer interaction - and this role is expanding, as we shall see. Thus, a CRM system that is also a SFA or helpdesk system will collect and store some of the data that will be needed for customer interactions.

A CRM system will therefore have some customer data itself, and will need access to data from a variety of other systems within the enterprise. This gives rise to architectural complications since it will be necessary to decide exactly how to deal

with this problem. Making transactional data available at the customer interface could place considerable demands on back office systems that weren't designed for it - normally, a bank system makes statement data available once a month for a batch print run, and doesn't have to provide it live every time a customer looks up their account.

This raises the question of whether all the required data should be copied to reside within a new database that belongs to the CRM system, and if so, how often it needs to be copied. Once a day may be enough for service records, but once an hour won't be fast enough for other data. And if the CRM system is involved in creating customer transactions, then its data may need to be replicated or synchronised rather than just copied.

In some cases it may be sufficient to access data from back-office systems in real time. Sometimes, the addition of middleware between front- and back-office systems can help solve the performance and scalability issues that this architecture gives rise to. Middleware can also reduce the development time of projects such as CRM that involve creating interfaces between systems. For financial services organisations such as banks, middleware is virtually a necessity.

As an alternative to middleware, it is also possible to access back office systems directly from front office applications such as CRM. One product that facilitates this arrangement is Actional's Control Broker, which in effect provides a layer of insulation to back office systems that makes them appear as native objects within the front office environment - for example, a COM object in a Windows environment. This architecture can result in less complexity, more flexibility and much faster response times than a middleware approach.

Business Logic

Customer relationships can span a long period of time, and cover multiple interactions with the business, in the areas of marketing, sales and after-sales service. Thus any CRM system that is not merely acting as a data warehouse, simply reporting customer information to customer service agents or the customers themselves, will have to contain business logic that spans a number of interactions.

For example, if a customer responds to a marketing campaign and buys a certain item, it may be deemed appropriate to send an email offering another product. If the customer responds in a particular way, it could be worth an agent telephoning them directly. Thus we need a way of managing a campaign that extends from an initial marketing campaign to include sales transaction data, another campaign, email response systems and even the call centre. The involvement could extend as far as including helpdesk and service data records to calculate the lifetime value of the customer.

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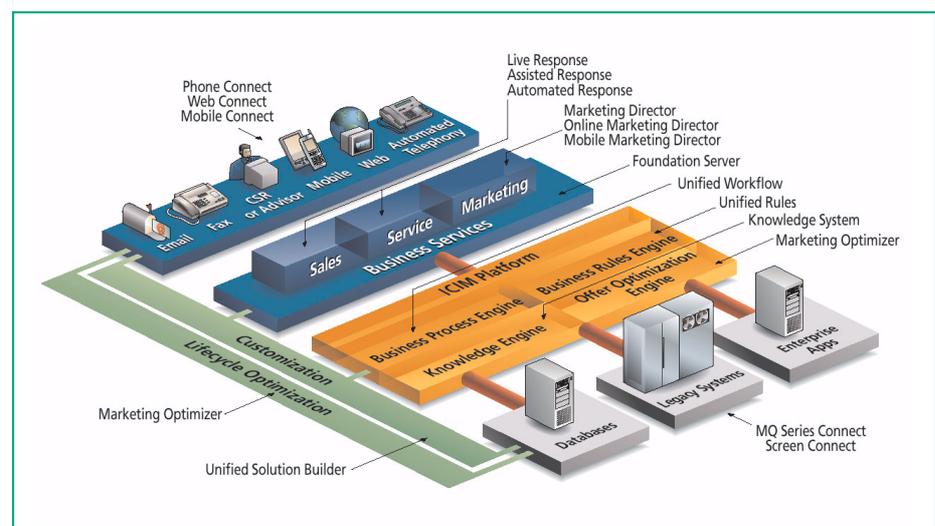


Figure 1 - CRM solutions such as Chordiant's span a range of customer touchpoints, different enterprise systems, and the full customer lifecycle.

This then raises the question of where that business logic should reside, since it needs to be within an environment that can not just monitor but also control multiple business systems. Middleware vendors would naturally like the business logic to be located within the mid tier, and most vendors have now extended their products from being a means of interconnecting enterprise applications to include the ability to execute business logic that governs multiple systems.

Another approach is to store the business rules within a central database or repository that all other front office systems can have access to. This is the approach taken by PegaRULES from Pegasystems, and Blaze from Brokat. Front office applications call upon these systems when appropriate to either retrieve or execute business rules, respectively.

Customer Profile Data

There is another factor that further complicates architectural decisions. It is natural for CRM vendors to want to take ownership of customer data, know as customer profiles, and to physically contain the single central repository for this information. Because CRM covers such a wide range of front-office activities, in real life it is extremely rare for CRM implementations to consist of a single module or application. By taking ownership of the data, CRM vendors would hope that companies expanding their CRM implementation would purchase additional modules from them, rather than their competitors.

However, the reality today is that very many vendors offer products under the broad umbrella of CRM, specialising in different areas of customer interactions. An actual CRM implementation could therefore consist of many different applications from many vendors - so instead of consolidating data in one new location we're actually compounding the problem. Commercial reality has forced vendors to offer integration with other products, so in reality it's possible to retain customer profile data within one application - for example, Siebel - where it is accessible by other programs.

Business Drivers

This plurality of systems makes it more difficult to define exactly what CRM is, which is why it's so important that the business case is properly understood before contemplating an implementation that could potentially run into millions of dollars.

The main business driver for CRM today is usually to increase the value that an organisation extracts from each customer. Commonly, this is achieved by selling additional products to the same customer (cross-selling), or by selling products of a higher value (up-selling).

CRM systems started out, like many classes of software, to cut costs and save time. They have followed the normal progression to improving customer service, and from there to helping to increase sales and profitability. But to achieve this, CRM systems have had to change their role, further complicating the picture. From being merely an adjunct to the sales process, they are now living up to the M in CRM, and playing an active part in the management of customer interactions and relationships.

For example, within the sales process, CRM systems are involved in both cross-selling and up-selling. They can also take part in marketing campaigns, even to the extent of collecting data that will be used to help design new products. Some systems labelled by their vendors as CRM now directly controlling the customer interaction itself - in effect, they are e-commerce systems.

The extensive data that a CRM system keeps within its database or has access to - including the details of marketing campaigns, the number of enquiries, the cost of pre- and post-sales support - allows us to calculate lifetime customer value. Other metrics that are available include customer acquisition cost, customer retention rates, and customer profitability.

Personalisation

One technology area closely associated with CRM, and usually included under the CRM umbrella, is personalisation, or offer optimisation. Key to cross- and up-selling is the ability to personalise offers to customers according to a number of different

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factors. For existing customers, these can include that customer's trading history with the company, and perhaps an estimate of their value to the organisation.

For new or unknown customers, for example those browsing a Web site, there's no trading or transactional history, so personalisation is based on other information. This can include basic profile data if the customer had entered any, or it can be based on what the customer is doing. At the most basic level this will be a browsing history, perhaps including data on how long the customer has been at each page. Touch Clarity is a good example of this - it observes and learns about Web site visitor behaviour and preferences, and then uses advanced modelling techniques to predict and deliver the most relevant content for each customer.

Data warehouse and analytical technology such as MicroStrategy's can be used to attempt to determine what correlations exist - like the well-known correlation between supermarket purchases of beer and nappies - in order to devise suitable cross-sell campaigns. A rules-based environment to enact the if-then-else personalisations devised by marketers is another essential component. ATG Dynamo, a Java application server, is often used in this context in conjunction with CRM systems such as Siebel.

Also required is some means of knowing what category to put a new customer in. A product in wide usage is Macromedia's LikeMinds. This collects data from a user's interaction with the Web site and assigns an affinity group of likeminded customers who have had similar interactions. Members of the affinity group are weighted according to their similarity to the new Web visitor. LikeMinds then uses the most similar peers to create recommendations based on those peers prior interests and behaviours - so if someone who spends five minutes looking at blue jeans often ends up buying cranberry ice cream, this particular recommendation can be made explicitly to the next visitor to dally over the trousers.

Further Information

Actional
www.actional.com

ATG
www.atg.com

Brokat
www.brokat.com

Chordiant
www.chordiant.com

HumanClick
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Kana Communications
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MacroMedia
www.macromedia.com

MicroStrategy
www.microstrategy.com

Netonomy
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Pegasystems
www.pegasystems.com

Siebel
www.siebel.com

Talisma
www.talisma.com

Vantive
www.peoplesoft.com

CRM Applications

The term CRM can thus include SFA, call centre, helpdesk, e-commerce systems and a collection of personalisation technologies. It doesn't stop there. In the Web environment, applications such as HumanClick can be closely integrated with CRM to further increase the effectiveness of cross and up-selling on a Web site. HumanClick provides an audio and visual alert as visitors browse a Web site or make an explicit request for help. It allows the agent to chat directly with the Web site visitor, using on-screen text messages, either as a result of a direct request or based on the visitor's profile information such as host name, pages viewed, length of visit, and so on. At any point during a visit to the site the agent may open a chat request on the visitor's screen and offer assistance. A similar technology is provided by Talisma.

At the moment, the CRM market is constantly changing as vendors such as Chordiant and Brokat grow their product suites - often via acquisition - to fill the niches currently occupied by specialist vendors. Companies selling software in virtually every sector imaginable - such as Remedy in the helpdesk market, and BEA Systems in the middleware space - are enhancing their product ranges and re-labelling their products as CRM.

Even the smaller vendors are themselves trying to expand their offerings to fill more of the CRM space. An example is Kana Communications, a company that started with systems to provide automated response to email - a vital component of overall customer management - and is now expanding its product range into other areas.

However, for the time being, innovation from companies like HumanClick and MacroMedia are creating new niches, leaving the major vendors playing catch-up. The end result is that it's not uncommon for one organisation to use Siebel's CRM suite, but to augment it with products from many of the other vendors mentioned here - ending up with as many as half-a-dozen different applications that together constitute the overall CRM implementation.

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