
Software review: The components of a marketing automation solution in a multi-channel real-time environment

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Abstract This paper describes the key components of a marketing automation solution. It aims to provide a framework for discussion on the components needed to support the marketing function in a multi-channel, real-time environment.

BACKGROUND

The last few years have seen the campaign management vendors repositioning their applications as marketing automation solutions. One of the reasons for doing this is to differentiate their solutions from the traditional campaign management applications that have little or no automation capability. At the same time it has become clear that marketing automation needs to go beyond campaign management and needs to look at supporting a wider range of processes within the marketing function.

the volume of communications (tenfold is not uncommon) while maintaining, and in some cases reducing, the size of the marketing team. Adding to this armoury the tighter integration of the novel real-time communication methods such as e-mail and short text messaging (many with significantly reduced unit cost per communication), has resulted in a situation where the same marketing team could potentially deliver 100 times more communications. The issue now is that many of the other marketing processes cannot cope with the increasing power of the core marketing communication engine. Wider automation of the marketing function is, therefore, inevitable.

This paper explores the key components and potential scope of a marketing automation solution.

INTRODUCTION

The introduction of high end campaign management applications with scheduling functionality provided marketing teams with the ability to significantly increase

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MANAGING CLIENT INFORMATION

The central component of any marketing automation solution is the client repository. This holds information on prospects, customers and ex-customers, allowing the relationship with the individual to be managed through each stage in the customer life cycle. The type of data held on the client will depend on the nature of the business but in general will include the following data categories:

- client profile, eg date of birth
- client grouping, eg household key
- client contact details, eg e-mail address
- communication preference data, eg do not mail indicator
- product/services involvement
- product/services usage
- inward and outward bound contact history
- response data
- behavioural model scores
- reference data.

Where the repository is to support business-to-business activities, the following additional data categories would normally be present:

- organisation, eg registered company name
- site, eg branch ID
- client site relationship data.

The client repository should hold current data for each of the data categories identified above, in addition a history will also be maintained for some data items, eg current account status code over time.

With the growth in real-time marketing and the demands of the novel communication methods such as those provided by the Internet and wireless application protocol (WAP) technologies there is a need to move to real-time maintenance of data in the client repository.

The technology used to store these data will depend on the requirements and IT strategy of the business. The use of 'open' data warehouses and data marts is common but more distributed solutions are being adopted particularly by global operations. The need for real-time maintenance of the client repositories is resulting in a number of new system models being developed.

A number of technologies have evolved to meet the requirements to build and maintain client repositories these include:

- ETL tools: for the extraction, transformation and loading of data
- RDBMS: relational database management systems for the storage of data
- name and address processing applications for the standardisation and validation of this type of data
- matching applications for the on-line and batch matching of name and address data
- client key management systems which are concerned with issuing and maintaining unique client IDs.

MANAGING COMMUNICATION DECISION MAKING

One of the primary functions of any marketing automation solution is to determine which client should receive what communication when and by what communication method. This communication decision process is at the heart of direct marketing. The processes described below will be supported.

Maintaining communication reference data

This process is concerned with maintaining reference data for

communications. These data are used to control and monitor the performance of marketing communication activities. The reference data should include target key performance indicators (KPIs).

Determining client communication eligibility

This process is concerned with using the available data in the client repository to determine whether a client is eligible to receive a specific communication. The inputs into this process include behavioural model scores.

Depending on the nature of the data used to select a client for inclusion in a target audience the solution will be able to support a range of marketing activities including:

- customer life stage, eg marriage
- product life cycle, eg policy renewal
- trigger, eg change in purchase behaviour.

Determining client communication priority

This process is concerned with applying one or more business rules to determine which of the eligible communications a client should receive. The inputs into this process include behavioural model scores, product and/or client profitability measures and KPIs.

Determining client communication delivery mechanism

This process is concerned with determining the most appropriate communication delivery vehicle for the client specific communication. The inputs into this process include behavioural model scores and channel capacity constraints.

Determining client communication cell involvement

This process is concerned with aggregating individual clients into communication cells or breaking groups of clients (target audiences) into communication cells that are used to monitor the performance of specific communication and channel combinations.

Traditionally, this communication decision making process has been performed for groups of clients as part of a batch process. But, with the move to real-time marketing, there is a need to 'decision' an individual client at the point of contact real time. This presents a number of significant technical problems that are further exacerbated by the general move to multichannel business models.

A number of technologies have evolved to meet the requirements for communication decision making. These include:

- behavioural modelling
- data mining
- campaign management.

MANAGING COMMUNICATION EXECUTION

Once it has been decided what communication a client is to receive the next stage in the process is to execute the communication. The subsequent processes to be supported will depend on whether the marketing communication is proactive, where the communication is sent directly to the recipient, or passive, where the communication is received by the recipient when they next make contact with the organisation. The latter case requires the details of the communication and/or any associated business rules to be made available at all

possible points of contact. The following processes will be supported.

Maintaining communication delivery reference data

This process is concerned with maintaining:

- delivery mechanism reference data, eg available capacity
- communication or campaign specific reference data required to deliver the communication
- the delivery system or process, eg data required to personalise a letter.

These data are used to control the communication delivery system or process.

Transferring required data to communication delivery system

This process uses the communication delivery reference data and the campaign reference data to determine what data should be transferred to the communication delivery system (e-mail production engine) or process (direct sales force) and when this should happen.

Executing communication

This process is concerned with executing the communication where the process is proactive. In the case of a passive communication activity, the system or process waits until the client contacts the organisation and the communication execution is triggered. A simple example of a passive communication is a personalised message on an automatic telling machine (ATM) screen.

Maintaining contact history

In order that the effectiveness of

marketing communications can be measured it is essential that an accurate record of all communications to and from the client is held in the client repository. This process is concerned with maintaining a record of all inward and outward bound communications with a client. The outward bound communications could be proactive or passive.

Automating and optimising communication execution

This process is concerned with automating the tasks that collectively form a campaign. This involves both the communication decision making and communication execution components.

A natural evolution in this automation is to move to communication optimisation. At the moment the automation is mainly concerned with allowing tasks to be executed in a sequence without human involvement. The next step is to establish performance criteria and allow the system to optimise the communication decision making and execution processes. This subject raises a number of interesting business issues around 'what are we trying to optimise?' Is it return on investment, customer profitability or customer retention levels?

A number of technologies have evolved to meet the requirements for communication execution, these include:

- data replication
- data messaging
- artificial intelligence
- campaign management.

MANAGING COMMUNICATION CHANNELS

The last few years have seen an explosion in the available communication methods to the average marketing

manager. With this has come a requirement to manage the resource utilisation in these communication channels better and to improve the integration between them. A comprehensive marketing automation solution should support these utilisation and integration requirements.

The primary focus of the integration is to ensure consistent treatment of a client regardless of the organisation contact point.

Consistent treatment does not mean that the same data are available at all points of contact. Providing credit reference data to a teller operator in a bank may be valid but the bank may not want to make these data available to a client as part of a personalised view on a website. The key is to disseminate the corporate understanding of the client resulting from the analysis of the data in the client repository to the rest of the organisation in a form relevant to the recipient.

The technologies that have supported this component of the marketing automation solution have tended to be independent of the communication decision process, but there has been a move to tighter integration of these systems to make more effective use of the channel resource. Perhaps the best example of this is the move from daily batch transfer of data into an outward bound call centre to a situation where the results of each call are fed back to the communication decision engine and the resulting target audience being continuously refined real time.

A number of technologies have evolved to meet the requirements to manage communication channels these include:

- data replication
- data messaging.

MONITORING COMMUNICATION PERFORMANCE

Monitoring the effectiveness of the marketing communication activities is an essential component of a marketing automation solution. If a process cannot be measured then it cannot be managed.

This component is concerned with the creation, maintenance, scheduling and execution of both paper and screen-based reports used to monitor various aspects of the marketing process.

The reporting element should use all the data available in the client repository including target KPIs held as part of the campaign or communication reference data.

A number of technologies have evolved to meet the requirements to monitor communication performance, these include:

- decisional support system (DSS) applications
- on-line analytical processing (OLAP) applications
- relational on-line analytical processing (ROLAP) applications
- integrated reporting within campaign management applications.

The move to real-time marketing means that other methods of presenting performance data are starting to appear, these use multimedia and novel data visualisation techniques to present information to campaign managers in a real-time interactive environment.

MANAGING COMMUNICATION CONTENT

The adoption of the core marketing automation technologies often results in a significant increase in the volume of communications sent to clients. Where this communication involves physical collateral, eg letters and brochures the

management of the creation, storage and distribution of these materials can become a problem. A range of technologies can be used to support these processes.

Archiving copies of communications has proved to be problematic for most organisations. The last few years have seen a growth in marketing encyclopaedia systems aimed at solving this problem. These systems allow marketing and customer contact personnel access to electronic images and/or copies of communications received by a client. These systems work well where the original collateral was paper-based but the novel communication techniques such as multimedia e-mail are stretching the current technologies.

Another area that is starting to get some attention, particularly where the communication delivery system is web-based, is physical content. Managing voice and multimedia components is proving problematic particularly where they are being used across multiple channels. The technology in this area is still embryonic.

MANAGING THE MARKETING PROCESS

The disciplines of process analysis and design have started to be applied to marketing. This work has shown that many of the processes in marketing, particularly those associated with the planning, execution and evaluation of marketing communication activities can be structured, documented and system supported. Two key technologies have started to be deployed in both small and large marketing teams, these are:

- task management
- workflow.

In some cases this type of functionality

is being added to campaign management systems.

MANAGING THE MODELLING PROCESS

The role of behavioural modelling in the communication targeting process is well established. This process is concerned with the development and deployment of model scores onto the client repository, either as part of the refresh process or as a dynamic part of the communication decisioning process.

As we move to a greater degree of automation and real-time marketing it is essential that models can be developed and deployed with relative ease.

A number of technologies have evolved to meet the requirements to build and deploy models in real time, these include:

- data mining
- DSS
- ETL.

CONCLUSION

The developments in communication delivery technologies have resulted in an explosion in an organisation's ability to communicate with its clients. Coping with these and real-time marketing will force organisations to look hard at how the marketing process is managed. The result of this analysis will show that it has implications for people, process and technology. Meeting these demands of real-time marketing will mean that much of the marketing process will need to be system supported and automated. Marketing automation will, therefore, impact on the whole of the process not just those parts traditionally supported by campaign management applications.

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