



Database Marketing Applications: Implementation Issues

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Introduction

The purpose of this white paper is to overview the key development and implementation issues associated with the strategic decision to deploy a database marketing system, with specific emphasis on the hospitality market. Four common approaches to the procurement of an enterprise application are:

- Purchase a “packaged” database marketing system from a software vendor
- Purchase a “generic” database marketing system from a software vendor
- Contract with a Systems Integrator to develop a database marketing system
- Develop the database marketing system utilizing internal resources

Additionally, there are multiple options available for the implementation of a database marketing system such as:

- In-house supported application (hardware, software, and related items)
- Traditional service bureau (often referred to as outsourcing)
- ASP or Application Services Provider

While the list above does not represent all possible options for development and deployment, it does focus on the most common. Any hybrid approach, such as utilizing consultants to assist with in-house development, can be factored in and contrasted to the specific issues discussed.

The key enterprise application success factors that will be addressed to contrast the above referenced options are:

- Time to develop the system
- Time to deploy the system
- Cost (expense vs. capital outlay)
- Obsolescence – planned and unplanned
- Support and Maintenance (initial and ongoing)
- System evolution (enhancements and upgrades over time)

Included at the end of this white paper is a document that compares, in easy to read table format, the major tasks associated with the procurement of a database marketing system from the end users perspective. The development tasks necessary to implement an enterprise level database marketing system should not be underestimated (and often are). It should also be noted that it is highly recommended that a data mart be built independent of an organization’s data warehouse, as some forms of query and analysis can have a dramatic impact on other processes that may require real-time or near real-time access (e.g. a Property Management System).

Simplified Key Issue Definitions

We believe that for an organization to make the best possible decision, all interested parties (internal and external to the organization) should have similar definitions for all critical terms. Recognizing that the database marketing end-user is typically in the marketing organization, and that the Information Technology group is involved at some level, and that the involvement of senior management is critical to the cultural change necessary for a successful database marketing initiative, several key terms are defined below:

ASP (Application Services Provider) – An ASP is a vendor who delivers one or more applications to the user’s desktop, with the Internet Explorer on a desktop PC being the User Interface of choice. The original ASP vendors would rent most any common application (e.g. Microsoft Office) to a company. These vendors are mostly gone, while vendors who want to provide their in-house developed application to end-users without the need for hardware or other infrastructure investments are the new breed of ASP. Today’s ASP vendor “rents” their software to end-users for a specific period of time (e.g. 36 months). The customer does not purchase any hardware or software, and the software rental is often an expense item, versus the capital outlay associated with a software license (and possibly a hardware purchase).

Business Intelligence (BI) – Catchall phrase for either: analytical/data mining tools and/or processes; or a component of an organization’s CRM strategy.

Data Mining – The process of organizing and analyzing large amounts of data so that useful information not readily apparent can be deciphered.

Data Quality – When applied to database marketing, it is the process of address correction (to the USPS ZIP+4 master file), National Change of Address (NCOA) processing, gender coding (male/female/unknown), and other rules based processes necessary to ensure the accuracy of customer information.

Demographic Data – Information about a person’s: lifestyle; education level; income; etc.; that is used by marketers to understand their customer more intimately, or to better target prospects.

Firewall – the network security system that protects an organizations internal data from malicious or inadvertent access from non-authorized users. The predominant reason for a firewall is the desire to connect an organization’s private network to a public network (i.e. the Internet/World Wide Web).

Generic Database Marketing Solution – This solution is not industry specific, and often requires extensive customization to fit an end-users specific requirements.

Modeling – The process of applying the known characteristics of an individual or groups of individuals (often referred to as a Segment) to a prospective group of people to find those with like characteristics. Often used to find the most likely buyers of a product

from a prospect list, or those who are likely to buy product B if they purchased Product A (Cross Sell). Also referred to as Predictive Modeling as the model is used to predict some form of behavior (will they buy or not buy a product). Modeling can help an organization send out less offers and get a higher response rate (the “lift”) than a typical mass-market approach.

OLAP (Online Analytical Processing) - Software tools that allow users to detect patterns or trends in data not apparent, often due to the sheer amount of data that must be analyzed.

Outsourcing – The utilization of a third-party company to provide a service normally provided by the organization. Examples would be contracting with a company to handle the majority of the Human Resources function, or all or part of the Information Technology function. Often a Service Bureau can act as an outsourcer.

Packaged Database Marketing Solution – Sometimes referred to as “off the shelf” software, this solution is industry specific and tailored for a specific use. Often it can be used immediately after installation as it has limited (by design) customizable components.

Segment/Segmentation – When applied to buyers, Segmentation is a way to group people with like characteristics for targeted marketing purposes. An example would be all people who live in the Los Angeles area, who have a college education, who have children, and who live in a house with a value greater than \$250,000.

Service Bureau – An organization that typically receives data from a customer, processes it at the service bureau’s data center, and then delivers reports back to the end-user. The key difference between an ASP and a Service Bureau is that the ASP end user can run the application directly, where the Service Bureau runs the application on behalf of the end user. Sometimes referred to as an “outsourcer”.

Systems Integrator - A vendor that develops a solution from a combination of third-party products (e.g. Oracle database, Dimensional Insight OLAP, Acxiom demographic data, etc.) and possibly their own proprietary software. This usually results in a custom (or one-off) solution that is specifically tailored to the customer’s requirements.

Target Marketing – Contrasted with Mass Marketing, Target Marketing is the process of delivering a message to a person who has some pre-determined potential interest level.

Enterprise Application Procurement

There are certainly advantages and disadvantages to the three most common methods of enterprise application procurement. First we will compare and contrast the four methods, and then we will apply the key success factors referenced in the introduction. All points addressed refer exclusively to the procurement of a database marketing system.

Develop the system utilizing internal resources

This approach is typified by the marketing department and the Information Technology (IT) group collaborating to specify, develop, and deploy a database marketing system. IT will gather the user requirements and present a development plan. The plan is often modified to meet budget and time constraints.

Contract with a Systems Integrator to build a system

The Systems Integrator specializes in the development of a custom system utilizing a combination of “off-the shelf” software and possibly their own proprietary software. They most likely have a proven methodology for all phases of the software development process, and through discussions with past clients it is relatively easy to determine their success rates with large, mission-critical enterprise level applications development.

Purchase a “generic” system from a software vendor

This approach is characterized by marketing selecting a database marketing system that will ultimately be customized to meet most or all of their specific requirements.

Purchase a “packaged” system from a software vendor

This approach is characterized by marketing selecting an “off the shelf” database marketing system that meets enough of their requirements to justify the purchase.

Database Marketing Implementation Options

Once the database marketing application is complete, the deployment to the users will follow. Several issues related to the deployment must be considered. Whether installed inside a company’s firewall, or deployed remotely, marketing users should expect a user-friendly interface, a reasonable response time from the application, and a minimum amount of down-time. Most of the implementation options that follow can address the above basic requirements, however the traditional service bureau approach is rapidly losing favor with the marketing users. This is based primarily on the concept of “touching the data”. The service bureau approach is “hands off”, meaning that marketers make requests of the service bureau, who then runs the request, while finally delivering the result (usually reports) to the marketing user.

In-house supported application

Organizations that have a robust Information Technology group will often provide their own resources to support the database marketing system, especially if it was developed in-house. IT will ensure that the desktop PC’s are running the latest operating system software and related applications, that the network infrastructure is adequate, that the

database is tuned and maintained, and that the operational system data is extracted and ported to the database marketing system. Usually a “help desk” center is maintained for user call in to report problems.

Traditional Service Bureau

A typical service bureau will charge a monthly fee to consolidate and house the customer’s data. Marketing users will request a stock set of weekly or monthly reports that will be delivered electronically or as hardcopy print. Any deviation from the “normal” reports will be granted to the customer through some form of exception request process, and with some turn-around time required before delivery. This is generally the least flexible approach to database marketing.

ASP or Application Services Provider

The ASP vendor will coordinate the secure delivery of the customer data (typically an extract from the PMS) to their facilities. The marketing end-user will access the database marketing system over the public Internet through a secure connection. No client software is required other than the web browser already installed on the marketing person’s desktop. The ASP vendor will provide all of the hardware and software necessary to deploy the application. All ongoing application support, including the maintenance and tuning of the Relational Database, is the responsibility of the ASP.

Key Success Factors

When the key success factors are applied to the four common methods of enterprise application procurement and implementation, an organization can more readily understand the ramifications of their decision. If the success factors are ranked in the order of importance, and organization can quickly see how each approach will be affected by the most significant success criteria.

Success Factors	Pkgd/ASP	Generic	Sys Int	Internal
Time to develop system	Short	Long	Long	Long
Time to deploy system	Short	Long	Long	Long
Cost – Expense or Capital Outlay	Exp	Cap	Cap	Cap
Fixed Cost Project	Yes	?	No	No
Early or unplanned Obsolescence ¹ Risk	Lo-Risk	Med- Risk	Risky	Med-Risk
Support (Initial)	Included	Included	Included	No issue
Maintenance (ongoing)	Included	Included	?	?
System Evolution – Enhancements	Included	Extra\$	Extra\$?
Hardware procurement	Included	?	Extra\$	Extra\$
Client Software Required?	No	?	?	?
Hospitality Industry Focus	Yes	No	?	Yes
Database Support	Included	?	?	Yes/Internal
Pre-built Hospitality OLAP Models	Yes	?	No	?
Integrated Data quality	Yes	?	No	No
Integrated Demographic Data	Yes	?	No	No
Natural language (English) Query Engine	Yes	?	?	?
Fully Integrated Data Visualization (GIS)	Yes	?	?	?
True Internet Application	Yes	?	?	?
Internet based self-paced eLearning	Included	?	No	No

Note 1. Obsolescence Risk is defined as the risk associated with technology that no longer delivers a competitive advantage. Common reasons are building on a proprietary platform, not being able to add new features easily, losing the institutional knowledge held by the original authors of the programs, and the lack of budget to upgrade the system.

Summary

The procurement and implementation of a hospitality specific database marketing system can be approached in two general ways. One, an organization can procure an “off the shelf” system that will meet a certain percentage of their requirements. The advantages are a fixed cost, rapid deployment, and an industry specific solution. In addition, if it is an ASP solution, the additional advantages are little or no initial fees, no hardware, network or software procurement, 24/7 access over the Internet, and little or no internal IT support requirements. The primary disadvantage to “off the shelf” or “packaged” software is that

the end-user will not get a system that is 100% customized to their requirements. This of course is the primary advantage of the other systems.

The primary disadvantage of the non-packaged approaches is the uncertainty associated with the development project itself. Will it be completed on time and on budget are the two big unknowns. Further complicating matters is the fact that user requirements often change in the middle of a project. This leads to the phenomenon known as “scope creep”. More than one development project has failed due to a continuously changing set of requirements. Once the project is complete, the next big issue is support. While the packaged software and the generic software vendors typically have dedicated support personnel, the Systems Integrator approach generally requires some kind of “hand-off” to the IT group in the organization. Whether the IT group takes the hand-off or assumes responsibility for their own development project, there is often a technical support priority scheme that can sometimes work against the database marketing system. IT’s first and foremost responsibility is to operational systems such as the Property Management System that is busily checking in guests or updating the available room inventory. This can often leave the database marketing system at the bottom of the technical support priority queue.

It can be argued that there is cost savings associated with the development of a database marketing system utilizing in-house IT resources, however the real issue is often time. Most everyone would agree that any large-scale project runs the risk of overages due to unforeseen circumstances. Even if the project is scoped perfectly, an enterprise level database marketing system can easily take a year or longer to develop, quality assure, and deploy.

The next big hurdle is the evolution of the system. The database marketing system should grow over time, with new features being added to keep the system at the competitive forefront. Packaged systems, and sometimes the generic versions, have product upgrades included in the ASP or maintenance price. Both the IT and Systems Integrator developed systems are usually “frozen” at an instant in time. Upgrades or enhancements typically require new user requirements, with the added time and cost associated with new development.

For many organizations the choice is clear. If time and money is not a concern, the organization can develop specific user requirements and have IT or a Systems Integrator develop the custom solution. For organizations that want a fully-featured database marketing system and can’t afford to wait for the development project, pre-existing software is the answer. And finally, for those organizations that require an industry specific database marketing system, and who want the security of a proven system that will continue to be enhanced with new features and capabilities, one final choice remains.