

Technology Evaluation For Marketing Automation

Finding a System that Meets Your Needs

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Why Technology Matters

Most marketing automation systems today are “Software as a Service” (SaaS) – meaning that the vendor runs the system and makes it available to multiple clients via a Web browser. SaaS hides most technical details from users, but it doesn’t make technology irrelevant. Even a vendor-run system can suffer from slow performance, lack of capacity, inflexible data structures, or excessive downtime.

The ease of deploying SaaS systems often lets marketers buy marketing automation without help from their information technology department. This puts the burden of technology assessment on the marketers themselves.

This workbook helps marketers make that assessment. Information technology professionals should also find it gives them a useful checklist of items to consider. The goal, relevant to marketers and technologists alike, is to understand the business impact of a system’s underlying technology, not to explore technology for its own sake.

How to Use This Workbook

The first step in using this workbook is to understand your business needs. You probably defined those needs during the initial stages of your marketing automation project. You may also have identified the system functions required to meet those needs and designed sample marketing programs to test those functions. If not, you should complete those steps before moving any further.

Once your needs are defined, look through this workbook to understand the technology-related issues that will matter to you. The workbook presents five sets of issues: data management, openness, security, performance, and enhancements. Each of these will matter to some degree, but how deeply you explore them will depend on the details of your requirements. To help you judge, each section describes the nature of its topic, how systems differ, and questions to ask.

Once you’ve selected your questions, develop a plan to get them answered. The final section of the guide lists different ways to gather the necessary information and suggests when to use each one. It may take some time to get thorough answers and we highly recommend that you bring in technology experts to help with process. Remember that the stakes are high: the wrong choice could leave you with a system that will prevent you from getting the benefits you expect marketing automation to provide.

The final step is to organize your findings and merge them into the rest of your system selection process. Technology is generally a screening criterion: it lets you rule out systems that can’t meet your needs. Among those that remain, you’ll probably look more at other factors such as features, services, vendor background, and cost.

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Data Management

Data management covers the system's capability to capture, clean, store, and retrieve marketing data. Specific issues include the types of data the system can hold, how the data is organized, and how it is made more accurate and easier to use.

This section also includes questions related to "multi-tenancy". Broadly defined as "use of a shared software instance by multiple clients", multi-tenancy is often considered the defining feature of Software as a Service. One result is that vendors sometimes claim they are "true" multi-tenant systems and their competitors are not. Few marketers are likely to care about the distinction but we've included it just in case it comes up. Marketers will care very much about the cost and performance advantages that can result from a multi-tenant approach, but you'll those assess directly.

How Systems Differ

Every marketing automation system can store lead profiles and contact history. But marketers may also want to add custom objects such as purchase transactions or social media history; to identify duplicates based on near-matches or complex matching rules; and to create advanced reports such as trends or time-series analyses. You'll need to look carefully to determine which of these capabilities are available.

Questions to Ask

- **Data structure**
 - What data objects are in the standard system structure? Does it include sales opportunities and status changes, separate accounts (i.e., companies or departments) from leads (people), store multiple scores per lead, allow multiple email addresses per lead, retain multiple survey answers if the same question is asked more than once, link to social media identifiers, and store social media relationships among individuals?
 - Can users add data objects to the standard system structure? What skills and user rights are required to do this?
 - Are there limits on how custom objects are related to standard objects? For example, can a new object be linked to activity records and survey results, as well as directly to a lead record?
 - Is custom data available for all system functions including list segmentation, campaign rules, lead scoring, event triggers, and reporting?
- **Data preparation**
 - Can the system extract key words and data types (e.g., an email address) from unstructured data such as search requests or social media posts?
 - Can the system standardize and validate input data such as personal names, companies, and addresses? Standardization removes variations by replacing nicknames with formal names, correcting spelling of company and geographic names, and reformatting business titles, telephone numbers or Web addresses. Validation ensures that inputs refer to actual entities such as postal addresses, email accounts, or Web sites. Both standardization and validation help systems to find matching records and remove duplicates. They may rely on vendor-provided reference tables or rules, user-provided information, or live processes such as a query to an email server or Web directory.

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- Can the system apply matching rules based on email, name, company, address, telephone, social media handles, and other attributes? Can these rules include partial matches and near matches? Can users create their own matching rules to supplement or replace vendor-provided rules? How do users create, test and deploy new rules?
- Can users create derived or calculated values when data is loaded, such as lead scores or predictive model results?
- **Analytical database**
 - Does the system store a history of changing values such as lead scores and opportunity status? These may be needed for time-based reports or analyses. Is each change recorded in a log file or does the system take periodic snapshots? Log files give more precise information but can be more difficult to query. Some systems store both.
 - Is there a separate analytical database to capture historical information or snapshots? How is this database organized? How often is it updated? Does it retain all details or only keep summary information? What control do users have over the types of data stored in this database?
 - What tools do users have to query the analytical database? Can they create custom reports? Can they do advanced analyses such as predictive models, trending, projections, revenue attribution, and marketing mix models?
- **Multi-tenancy**
 - Do all clients run on the same program code? This saves substantial development and operating costs. But it also adds complexity because any special needs must be accommodated through configuration options rather than custom coding.
 - Do multiple clients run on the same server? Sharing the same server allows more efficient hardware utilization and saves some support costs.
 - Do multiple clients share the same database instance? This is known as “commingling”. It provides some cost savings and facilitates sharing work across multiple hardware resources. Despite security features to ensure that each client’s data remains private, some organizations are uncomfortable with commingling and prefer an isolated database. Some vendors offer this as an option.

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Openness

Openness is the ability of a system to work with other systems. This exists at many levels, including Application Program Interfaces (APIs) and pre-built connectors to share data and functions with external systems; compatibility with different types of workstations and browsers; multilingual support in data storage, marketing materials, and the user interface; and capabilities to export data, marketing materials, and campaign logic.

How Systems Differ

Nearly every marketing automation system can synchronize lead, contact, and account data with Salesforce.com. This means that changes made in one system are copied into the other. Many products can also synchronize with other sales automation products such as Microsoft Dynamics and SugarCRM. But marketers may want additional levels of CRM integration or to connect with other systems within and outside their company. This lets departments share resources, coordinate processes, and deliver consistent treatments to prospects and customers. Marketers must also ensure the system will work on their current networks and workstations, that it supports the required human languages, and that they can retrieve their data if they want to move elsewhere.

Questions to Ask

- **Connectivity**
 - Does the system have published APIs to load new data, update existing data, read existing data, export data, and perform specific functions such as adding a lead to a campaign?
 - Does the system use the published APIs for its internal operations? This is an important indicator of API maturity.
 - How many clients use the system's APIs, and which ones do they use?
 - Are there volume, cost or other constraints on clients' use of the APIs?
 - What systems can be accessed through prebuilt connectors and what functions are provided? Specifically look at CRM, social media, Web site, Web meeting, and order processing systems you may work with.
 - How long does it take to build a new connector, what skills are required, and can clients do this for themselves? How many clients have actually done this, and for which products?
 - What third-party application integration systems do you support? These are products that create generic connectors between existing systems. Examples include Boomi, Castlron, SnapLogic, Pervasive, and RunMyProcess. Once a marketing automation system has a connector for one of these products, it can integrate with any other system that also has a connector for that product.
 - Is there a public market or exchange where developers can post connectors and applications they have built to work with the system? How many products are available and how many clients are using them? Ask for access to the forum and review the information made available to developers.
- **Compatibility**
 - What workstations does the system run on: Windows, Linux, Mac, smartphone, tablet? Are there any limits to which system functions or features are available on the different platforms? It's

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common for smartphone and tablet interfaces to support only some functions, such as viewing reports and receiving messages.

- What browsers does the system run on? Be specific about browser versions: some interfaces may require technologies, such as Adobe Flash or HTML5, that are only available on certain browser editions.

- **Multilingual Support**

- Can users create and store marketing materials (emails, Web forms, etc.) in double-byte character sets? Double-byte sets render non-Romance languages such as Japanese, Chinese, Korean, Greek, and Russian.
- Can the system store double-byte characters in its database?
- Can the system use double-byte characters in segmentation, campaign rules, lead scoring, and other processing?
- Is the user interface available in languages other than English? Which ones? Can the same implementation show different languages to different users based on their personal profiles? What is required to add a new interface language?

- **Export**

- How can clients export data from the system? Which tables are available: lead and account profiles, activity history, form entries, lead scores, etc.? How is the export data formatted (delimited, text, XML, database table, etc.)? How are the data structures described? Are custom fields and tables handled any differently from standard fields and tables? Are there any volume or time limits on a large export?
- How can clients export marketing materials such as emails and Web forms? How are the materials formatted (HTML, text, XML, etc.)? What metadata is provided (e.g., creation date, owners, access rules, change history)?
- Is it possible to export campaign flows, scoring rules, segment definitions, and other system objects? How is this accomplished? How is the data formatted?

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Security

Security includes controlling system access by authorized users, preventing access by unauthorized users, and ensuring access despite physical or network problems.

How Systems Differ

Every system lets administrators add new users, requires passwords for user access, and has data center procedures to prevent intrusions and restore backup copies in case of failure. But some clients will need greater protection to comply with company policy or external regulations. Systems that will be deployed to many users, at many locations, or shared with partners will need more precise control over which rights are assigned to individual users.

Questions to Ask

- **User rights**
 - How precisely can user rights be assigned? Ask for a list of the assignable rights: this can vary from a handful of generic capabilities (e.g., read only vs. read/write) to hundreds of specific options (e.g., set up a campaign schedule).
 - Are user rights assigned separately for each user or to groups that users belong to?
 - Are user groups predefined or can administrators create their own, each with separate collections of rights? Some systems only allow a small few user groups such as administrators, marketers, and salespeople.
 - Can users be assigned rights to specific system functions (e.g., create a campaign, send an email), to data elements (e.g., campaign status or contact email address), to sets of contacts (e.g., contacts in a specific sales territory), to specific campaigns, and to specific marketing materials?
 - What reports are available to review which rights are assigned to each user?
 - What reports are available to show what tasks are actually performed by each user?
- **User access**
 - What controls does the system place on passwords, such as requiring a certain degree of complexity or periodic password changes? How much control does the administrator have on these rules?
 - Does the system use two-factor authentication? What factors are used? A typical combination is a password plus some other method such as a hardware token or fingerprint scan.
 - Are data transmissions encrypted? If so, what methods are applied? One standard method is Secure Socket Layer or SSL connection.
 - Does the system verify user locations by restricting log-ins to previously authorized IP addresses or computer workstations? This makes it harder for someone who has stolen a password to gain access.
 - What security training is provided to system users? How do users report possible security problems? Review the manuals and training materials.

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- **Network security**

- What kinds of network firewalls, intrusion detection systems, and similar technologies are in place?
- What kinds of controls are in place to limit access by users within the network?
- What kinds of vulnerability scans are performed on a regular basis? Are these done internally or by an outside service? Ask to see several recent reports.
- Are all security-related software patches in place on all equipment? How does the vendor ensure these are kept current?

- **Physical security**

- Does the vendor run its own data center or use a third party? If so, which one?
- What physical access controls are in place at the data center?
- What systems are in place for backup power, heating, cooling, fire suppression, etc.?
- Are there multiple connections to the telephone and Internet? How are these configured?
- How are data backups managed: daily, incremental, real-time mirroring? How long is data retained? Where is it physically stored? How long does it take to recover from different kinds of failures? How often are backup systems tested to ensure that are working properly? Ask to see reports on recent tests.
- What disaster recovery procedures are in place? Is there an alternative site available if the primary data center is out of commission? How long does it take to restore service at the alternative site? What are the procedures and priorities? When was the last disaster recovery test performed and what were the results? Ask to see a copy.

- **Organization**

- What security certifications are in place (e.g. SAS 70, PCI, NIST, Common Criteria)? Ask to see audit reports and pay close attention to what's being certified: many standards check for compliance with stated processes or goals, rather than certifying an absolute level of protection.
- When and how are users notified if a security breach is identified? What are the notification rules for different types of breaches? Ask for a list of recent incidents and notifications.
- Is the security team organizationally independent from rest of the IT operations group?
- Are outside services used to check security? To whom do they report?
- What security training is provided to the vendor's personnel? What are their procedures for reporting security issues?

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Performance

Performance determines your ability to actually use the system without problems due to slow response, data volume, errors, or downtime.

How Systems Differ

All systems are designed to be reliable, but some are engineered primarily to serve smaller or less demanding clients. These may not scale well. Vendors also differ in how well they react to problems.

Questions to Ask

- **Performance**
 - What is response time for interface-intensive tasks such as updating a campaign flow? You'll need to create a set of sample tasks and run them. Response time may be slow if the system must redraw the screen after each step in a process. It is not usually affected by the number of contacts in the database or amount of data per contact. An exception may be interfaces that query the database to display the number of qualified records at each step in a campaign.
 - What is the processing time for data-intensive tasks such as finding a contact record, creating a list with complex criteria, updating lead scores, or sending a large number of emails? You'll need to run sample tasks against a test database the same size as yours or larger. Only a very large database is likely to slow response time perceptibly. But the time to physically update records (such as storing a lead score) or create output files (such as sending emails and adding a record to the activity history) will probably be proportionate to the number of records processed. Check performance at different times of the day and days of the week, since there are certain peak periods when many clients tend to be active simultaneously.
- **Scalability**
 - What is the largest client database currently managed on the system, in terms of contact records, emails sent per month, total data storage, and number of users on the system?
 - What are the theoretical maximum numbers of contacts, messages sent, and users the system can manage? Some systems have a design limit and others don't.
 - What would the vendor do if you ran into performance issues related to system size?
- **Reliability**
 - What is the system's guaranteed availability percentage?
 - What is the actual availability percentage? How was this measured? Review figures for the past year.
 - How many unscheduled outages were there in the past year? What were durations and causes?
 - Does the company use an independent uptime measurement service such as Gomez or Pingdom? Ask to see recent reports.
 - How often is the system shut down for maintenance, and for how long? How are users notified of planned downtime? What functions, if any, are available during normal maintenance?

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- **Problem Management**

- How do users report system problems such as downtime or bugs?
- Is there a public problem reporting and tracking system? Ask to view it.
- Is there an internal problem tracking system? Ask to see recent reports.
- What is the process for reacting to problem reports? How are they classified, prioritized, escalated, resolved, and reported?
- How does the company report to users when a problem is discovered that could affect them?
- How many new bugs were reported per month in the past year? How were these rated by severity?
- What is the average time to fix bugs of different severities? How has this changed in the past year?

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Enhancements

Enhancements are changes made to the system to add new features, improve existing capabilities, and stay compatible with other products.

How Systems Differ

All marketing automation systems are continuously enhanced to keep pace with user needs. The vendor's past and planned enhancements give a good indication of thought leadership, product maturity, and whether its plans match your own. It's also important to assess how the vendor manages the upgrade process. You want to be certain that users have ample advance information about new features, that they are thoroughly tested before deployment, and that any bugs are fixed quickly.

Questions to Ask

- **Product History**

- What changes were made in the last several releases? Most vendors will publish release notes that explain the changes. Review these to understand how much of each release was breaking new ground, how much was catching up with competitors, and how much was fixing old problems.
- How quickly does the vendor support new platforms? When did it deploy versions to run on the latest personal computer operating systems, browsers, smartphones, tablets, and other new media?
- Did actual releases match earlier plans? Ask for copies of vendor roadmap presentations going back several years and compare these to the features that were subsequently released. Did the vendor correctly anticipate client needs? Were there repeated delays in execution? Did the vendor change directions? Did it add unplanned features to meet new marketing needs?

- **Product Plans**

- What is on the current product roadmap? Is the roadmap detailed enough to give a clear idea of what will be delivered?
- Does the roadmap match your own expected needs?
- Does the roadmap include features you thought were already in place?

- **Release Process**

- How often does the vendor release new versions? On-premise software vendors typically have just one or two major releases per year but Software as a Service vendors usually release more frequently.
- What testing and quality controls are applied to new releases? Does the vendor test all changes for usability as well as functionality and reliability? Look at the history of user comments on forums and social media to find whether new releases have generally been bug-free. Ask current users the same question.

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- How does the vendor inform clients of release plans? This includes the timing of the new release and the changes it includes. Review announcements, release notes, and other communication methods.
- How does the vendor help clients take advantage of new features? Do they provide email notifications, online training sessions, personal training by account managers, user forum discussions, videos, and written documentation?
- Do new releases require changes in client operations? Ideally, clients would have the option to ignore new features until they are ready to apply them. But vendors sometimes remove old features to keep the product from getting too complicated. Find out how the vendor has handled major enhancements in the past.

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How to Find Answers

Some of the questions raised in this workbook can be answered directly or in demonstrations. But you have other options that may be appropriate in a particular situation. You'll probably do best to rely on a mix of the following:

- **Demonstrations:** ask the vendor to demonstrate specific tasks such as adding a custom field or table, setting up a new matching rule, and building a custom report. This will help you understand not just whether these tasks are possible, but how much work and what level of skill they require.
- **Briefings and documentation:** ask the vendor to describe how to accomplish tasks that are too complex to demonstrate directly. Also ask for training materials and documentation related to these tasks. Be sure your team includes an expert with the technical knowledge to ask suitable questions and understand the significance of the answers.
- **Samples:** look at sample data structures, matching rules, campaign designs, analytical reports and other objects that match your required capabilities. Be sure you understand how the system is achieving the desired result, so you are confident the same approach can be used to meet your needs.
- **Reports:** ask the vendor for copies of security audits, standards certifications, system availability reports, deliverability history, disaster recovery tests, and other records that show how the system has performed over time. Many of these will be prepared by third parties, which give them greater credibility.
- **Partner lists:** identify technology partners who perform specific functions, such as address standardization, duplicate identification, data enhancement, anonymous visitor tracking, application integration, and reporting. You can then research the capabilities of those products.
- **References:** ask the vendor for references who have performed technical tasks that are too complex to demonstrate. Be sure they provide you with a technical contact who is familiar with the task you are researching.
- **User forums:** look at the company's user forums and public social media to identify common problems, recent bugs, enhancement requests, response time, and support issues. Be sure to get access to forums available only to current users. Some of these forums will include statistics on uptime, deliverability, and similar data. They may also include voting on feature requests and histories of past problems.

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About Raab Associates Inc.

[Raab Associates](#) is an independent consulting firm that helps marketers get the most from today's technology. We help our clients to define needs, evaluate vendors, make selections, plan deployment, and measure results. Established in 1987, Raab Associates is noted for thorough research and objective advice. For more information, visit www.raabassociatesinc.com or email info@raabassociates.com.