

# **The Customer Data Platform: A New Foundation For Customer Management**

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# Customer Data Platform: A New Foundation

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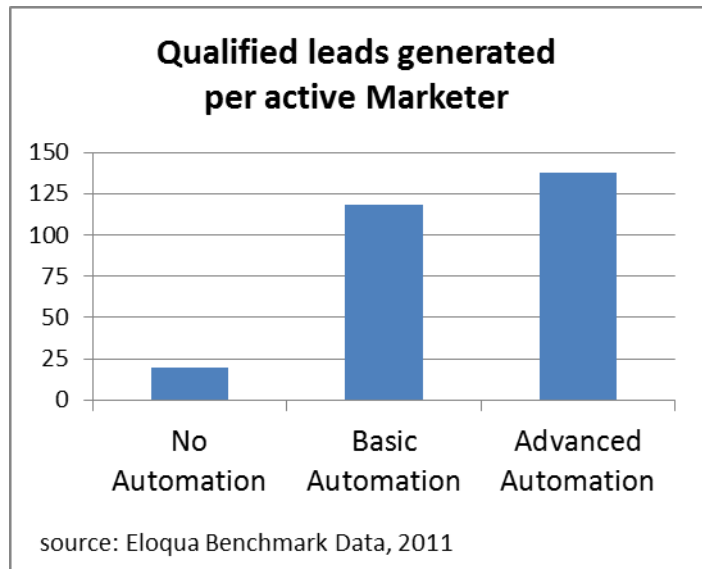
## The Marketing Technology Treadmill

*Marketing automation. Inbound marketing. Social media. Content marketing.* Business marketers have spent the past five years chasing one solution after another, scrambling to keep pace with buyers whose behavior has forever changed.

The nature of this change is well understood: buyers today aggressively gather information from many sources before making a purchase; many don't contact the actual vendors until their decision is almost final. The implications are equally clear: marketers must spend more effort earning the attention of early-stage buyers, which in turn means they need more complete, higher quality data to target more effectively. At the same time, use of non-vendor information sources means the vendors get less data from buyers directly. Hence the frantic adoption of new technologies to tap alternative information sources and to market more effectively.

These efforts have been productive: to cite just one statistic, an Eloqua study found that advanced marketing automation departments generated *seven times* as many qualified leads per marketer as companies with no marketing automation.

But tools like marketing automation address only a part of the marketer's workload, while juggling separate systems for advertising, email, Web content, social media, Webinars, and other channels is itself a huge new burden. Even worse, customer treatments must be coordinated across all those systems or their effectiveness will be severely reduced. The modern marketer's lot is not a happy one.



The obvious solution is to manage all channels with a single integrated marketing system. But today's marketing landscape changes too fast for that to work: there's always a new channel or a new feature in an existing channel that the central system doesn't support. Moreover, in the rush to deliver channel execution features, vendors often use the shortcuts of specialized data structures and processing engines that cannot easily be extended to support additional channels.

You might expect more flexibility from B2B marketing automation products, since they openly aspire to be the marketing department's primary operational system. But a fundamental design requirement for B2B marketing automation is tight integration with CRM systems like Salesforce.com. That places severe constraints on the

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marketing automation systems' database design and data matching capabilities. The most advanced vendors allow some flexibility, but none matches the ability of B2C marketing automation products to connect to any data structure the client desires.

## What Marketers Really Need

We've seen that B2B marketers can't run their business on a single execution system and can't work effectively with multiple, disconnected execution systems. The problem only gets worse as new channels proliferate and customers expect consistent, targeted treatment across all contacts.

Happily, there's a practical solution: build a separate integration layer that connects the execution systems without replacing them. Companies with deep pockets and sophisticated data management capabilities have been building such layers for years. Usually called a data warehouse or marketing database, these systems gather data from internal and external sources including marketing automation, trade shows, CRM, advertising, Web sites, accounting, social media, and industry databases. They identify records relating to the same individual or business account to produce a consolidated customer view. They often further enhance the customer profiles with external data, predictive model scores, segment codes, and recommended treatments. They then make the results available to execution systems to use for personalization, offer and program selection, campaign execution, and other purposes. The same data is also available for results reporting and other types of analysis.

This approach has two main benefits. First, it enables all marketing systems to work from a complete, consistent customer view, enabling coordinated treatments across channels. Second, it saves each channel system from having to assemble its own detailed customer database.

The problem is cost. Traditional data warehouses require separate, expensive software to load and transform the data, to associate related records, and for modeling, analytics, and reporting. This all runs on expensive hardware and is operated by expensive IT staff and data scientists. Even at companies where these resources exist, the IT department often gives higher priority to projects outside of marketing. These barriers have prevented all but the largest, most sophisticated B2B marketing organizations from building a truly comprehensive central customer database.

The good news is, this is changing. Enter the Customer Data Platform.

## Customer Data Platform Defined

The Customer Data Platform is a system that builds a consolidated marketing database and makes it available to execution systems. Unlike traditional technology for customer database management, the CDP is designed to be used by marketers, not

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technicians. This doesn't mean anyone can build a database with the system or that the task is effortless. The deployment team must still understand and connect with the source data, an often-painstaking task that requires significant technical skill. But the CDP simplifies the database management process as much as possible, typically allowing users to define update and matching rules without actual programming. Many, but not all, CDP systems are "cloud"-based services, meaning there is no actual software for the users to install or maintain. This alone can substantially simplify deployment.

The specific database management capabilities required to qualify as a Customer Data Platform are:

- **accept data from any source system.** This includes traditional, structured data such as purchase transactions and email contact history. It usually extends to unstructured or semi-structured information such as Web log files, social media posts and profiles, call center notes, search phrases, marketing materials, and product descriptions. Some CDPs provide specialized tools for particular types of data gathering, such as scanning social media for relevant information. Some have prebuilt connections with external data sources to enrich leads with information about the company or individual. These features are valuable but are optional. What's essential is that the system can accept such inputs and store them in a usable format. To be even more specific, the system must not impose a fixed data structure, but instead let users add whatever tables and relationships they require.
- **associate different identifiers for the same individual.** Traditional marketing systems often associate data from different systems only if there's an exact match on a key such as account ID or email address. These products rely on other systems to make indirect associations such as linking an email address to a postal address or overcoming variations in name and address entries. At a minimum, a CDP can chain together multiple identifiers: so if a Web system captures an email address and cookie ID, and the call center captures email address and phone number, the system recognizes that the phone number, cookie ID, and email address all belong to the same person. Many CDPS support more complex linking methods as well, such as rules that score potential matches on multiple data elements. They can also often make matches using external reference databases that contain information not gathered by the company itself. For B2B in particular, the systems are able to make matches by company, account,

## Why "Customer Data Platform"?

The label "Customer Data Platform" was carefully chosen. "Customer" indicates that the system services all customer-facing departments, not just marketing. "Data" shows that the primary focus is on data management, not message delivery. "Platform" shows that the system supports multiple applications, including analytics and execution, without necessarily performing them itself. We also made sure that the three letter abbreviation CDP isn't commonly used for any existing marketing-related systems.

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and individual levels. As with data loads, association in a CDP can be managed by non-technical users but still requires considerable understanding of the issues and attention to detail. Many CDPs simplify this by providing default association rules which users can accept unless they have strong preferences of their own.

- **allow access by external systems.** This generally means the CDP provides an Application Program Interface (API) that lets execution systems read its data during customer interactions. But access via standard SQL queries is also a viable alternative in most situations. As we'll see shortly, CDPs usually provide more than simple access to shared data, but in situations where simple access is all that's needed, they must be to deliver.

Although the consolidated customer database is the primary product of the Customer Data Platform, these systems include two more layers:

- **predictive modeling.** The CDP enhances customer data with derived values that make it more useful. Some of these are simple aggregations such as the number of Web site visits in the past week or an index of interest in specified topics. But the most potentially valuable are predictive model scores that show which offers are most likely to be accepted, which content will be most appealing, expected value as a customer, likelihood of making a purchase, probable role in the buying process, and so on. These predictions can be fed to execution systems to help guide customer treatments, both improving results and ensuring consistency. The CDP is an efficient place to build models because it holds all relevant data and because models can be shared across execution systems. CDPs often include automated or semi-automated model building and scoring features, but some rely on external modeling systems such as SAS or R. Automated systems are especially useful for marketing departments without access to trained statisticians, which includes the vast majority of B2B companies. Companies that do have modelers available often find the modelers prefer to use their familiar tools rather than learning new systems provided by the CDP vendor. Regardless of how the model scores are developed, the key role of the CDP is to make them easily accessible across all execution systems.
- **decision management.** A true CDP extends beyond predictive models to provide the execution systems with recommendations for customer treatments. The

## Business Buying is a Team Sport

Nearly every business purchase involves more than one person. Sales people have long been trained to identify people acting as users, deciders, influencers, and other roles and to treat each appropriately. But as online interactions increasingly replace sales meetings, data-driven insights must replace the sales person's assessments. The CDP can play a critical role in making this possible, by identifying individuals who are part of the same buying team, inferring their roles based on their behaviors, and recommending relevant treatments. The CDP can also create group- as well as individual-based lead scores, to ensure that sales people are alerted to active opportunities even when no single person's behavior is enough to trigger a response.

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recommendations are based on a combination of model scores and decision rules, which control which offers are considered and how they are prioritized. As with other components of the CDP, decision management is controlled through an interface that is accessible to marketers and other non-technical users. Connections to the execution systems are made through APIs that let those systems submit a decision request containing relevant information such as the customer identity and current context and receive a recommendation in return. The CDP may return the actual content to be presented or it may point to content stored within the execution system itself. Most decision management systems also capture whether the recommended offer was actually presented and if it was accepted. This information is used in reporting and to help the system make more accurate recommendations in the future. The decision management features of CDPs vary widely in the sophistication of their features and the channels they support. The most common channels are call centers and Web sites. Some also support dynamic content within emails, including content that is reselected each time the email is read. Some are focused on real time bids for online display advertising: this is a specialized capability requiring extremely fast response and tight integration with ad networks.

## What's Really New?

Systems to build customer databases, run predictive models, and manage real-time decisions have been available as independent products for decades. All three functions have also been part of suites from enterprise software vendors like SAS and IBM. What's new about Customer Data Platforms is they offer those specific functions as a pre-integrated bundle, a combination rarely seen in the past. In addition, CDPs are designed to be run by marketers and other non-technical users, not by IT departments – although, as discussed elsewhere, some IT involvement is both desirable and inevitable.

Each layer of the CDP adds incremental value. The foundational database provides basic information to run marketing automation and other customer management systems. Predictive modeling helps those systems do a better job of targeting and segmentation. Decision management ensures that programs are optimized and coordinated across channels. By making all these capabilities immediately available, the CDP helps companies get the most value from their execution systems with minimum effort.

## What Next?

So far, we've seen that today's marketers need a central database to gather customer information from all sources, integrate it, and use it to coordinate customer treatments across all channels. We've further seen that a new class of system, the Customer Data Platform, meets this need in a way that many marketers can afford and that gives them more control than conventional data management technology. We've defined the Customer Data Platform as containing three components: database management, including support for data from all sources and sophisticated identity matching;

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predictive modeling; and decision management. Although there are significant differences among CDPS in the details of these components, a system must provide all three to qualify as a member of the group.

This leaves the most important question of all: how can you take advantage of these new systems?

It's tempting to answer, "Go out and buy one," but that isn't necessarily the best place to start. You'll need to first lay some groundwork within your company and do some homework by researching your choices. A well-considered approach might be:

- **define key applications.** Identify a specific problem that a CDP might solve. Possibilities include: measuring marketing results, which requires an integrated database linking marketing to sales; using social media inputs, which requires tools to gather and filter that data; coordinating Web and email campaign messages, which requires a shared recommendation engine; or better lead scoring, which requires integrated data and improved predictive modeling. Other goals might be enrichment with external data, higher data quality, or better reporting dashboards. The application you choose will depend on your particular business needs. Just be sure to pick one with a substantial financial value that you can measure.
- **work with IT.** Customer Data Platforms give marketers and other business users more control over their customer data. Even so, they cannot be deployed in any sizable enterprise without cooperation from the IT department. At a minimum, IT must grant access to source data systems. In most cases, IT will also be involved in approving the purchase, selecting the vendor, and managing deployment. Assistance from IT can be helpful to the CDP and opposition from IT can be fatal. So it's important for IT to understand the purpose and function of the CDP and see why it's important to the business.
- **find an appropriate system.** CPDs are a new category of software whose members have emerged from widely different backgrounds: data compilation, social media marketing, predictive modeling, real-time decisions, online advertising, and others. Each vendor has strengths and weaknesses that reflect its origins. Look for a vendor whose capabilities

## Is SaaS Necessary?

Many Customer Data Platforms are Software as a Service (SaaS), either exclusively or as an alternative to on-premise installation. Technically, this means the software is run by the vendor on a vendor-controlled machine; financially, it means the client subscribes to the service rather than purchasing the actual software. SaaS systems are generally easier and quicker to deploy than on-premise software. However, most of the effort with a CDP is connecting to source and execution systems, which is about the same either way. SaaS is sometimes easier to purchase because there is a lower initial cost and no need for a capital expense. Some companies still prefer on-premise software because they want to keep full control over the data, although this objection has become less common.

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match your initial target applications, while also considering the vendor's potential to support other applications in the future. But bear in mind that this is a rapidly evolving industry: even the most carefully considered system may not be your best option in two or three years. So consider your first investment as something of a pilot project that you might discard if a better choice comes along once you've proven the concept's value. The flexibility to change systems is one advantage of SaaS solutions, although switching vendors will be a significant project whether the incumbent is SaaS or not.

- **deploy and measure your results.** Once you've chosen a system, be sure to deploy it effectively. That means, ensure that you understand the source data and are using it appropriately; invest in adequate training for system managers and the marketers who use its outputs; execute the applications you originally intended (or other, better applications if you find them); and, measure the results. Measurement is critical, since it is how you'll convince yourself and others that the deployment was a success.
- **expand the footprint.** Build on your initial success by identifying other applications that can benefit from the CDP. This should be easy: many programs need the CDP's shared data and coordinated treatments. Remember that the CDP should ultimately serve more than just the marketing department. All areas of the company need to coordinate and optimize their customer treatments, which is exactly what the CDP is designed to assist.

## Summary

A true Customer Data Platform combines four features:

- integrated customer database
- predictive modeling
- real-time decision management
- run by non-technical users

Offering these in the same package reduces costs so that companies of all sizes can convert growing volumes of customer data into effective, coordinated treatments.

Marketers will be rightly cautious about vendor claims to simplify a process that is notoriously difficult. Look for CDP systems that are mature, deploy easily, and meet a broad range of needs. Then test the chosen system, prove its value, and expand its applications. No matter how easy anyone makes it sound, deploying a CDP will require significant time and money. But marketers ultimately have no choice: without the quality data, analytics and execution enabled by a Customer Data Platform, they will soon lose customers to companies that offer the superior treatment today's business buyers demand.



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## **About Raab Associates Inc.**

Raab Associates Inc. is a consultancy specializing in marketing technology and analytics. Typical engagements include business needs assessment, technology audits, vendor selection, results analysis, and dashboard development. The company also consults with industry vendors on products and marketing strategy. It publishes the B2B Marketing Automation Vendor Selection Tool (VEST), the industry's most comprehensive independent guide to B2B marketing automation systems.

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