INTERNET TECHNOLOGY Research

e-Everything

Technology-Enabled Customer Relationship Management

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"Dynamic trade will push the traditional model of customer relationship management (CRM) beyond its limits. Companies need a new approach—eRelationship Management—to leverage the Web's unique strengths for capturing and publishing a single view of customers."

--Forrester Research

"Outsourcing mission-critical e-Customer Relationship Management lets experts design and maintain online systems while the company focuses on its core business."

--Dave Swan, CEO, Web Associates

❶ Introduction

Customer Relationship Management can be widely defined as company activities related to developing and retaining customers through increased satisfaction and loyalty.

In this white paper we refer to online CRM activities—all customer-facing processes integrated via the Internet—as *e-CRM*: Electronic Customer Relationship Management.

The greatest challenge most companies face is providing a seamless customer experience between different departments and business units.

Going "e" with Customer Relationship Management

CRM's traditional focus is on managing and increasing the value of business-to-customer relationships. But while CRM practices help to acquire and retain customers, historically CRM activities have *increased* rather than *reduced* operations costs. Managing customer relationships is expensive and cumbersome, especially where cross-divisional communications are required to link customer needs to fulfillment channels.

Web-based CRM uses the Internet to integrate and simplify customer-related business processes, drastically reducing costs of customer-facing operations while achieving CRM's primary goal: to enhance the customer experience.

A Single View for Customers

A complete, integrated e-CRM system is characterized by faster, automated services available online or on the desktop 24 hours a day. Typically the greatest challenge a global company faces in accomplishing this level of service is providing a seamless experience between different departments and business units; therefore, a focus of e-CRM is integrating front- and back-office activities and cross-divisional functions.

Cross-Divisional eCRM Functions

PROCESS	FRONT-OFFICE	BACK-OFFICE
Sales	Customer-directed E-commerce Dynamic, interactive catalog integration	➡ Sales Force Automation ➡ Product database
Marketing	One-one relationship Proactive notification	➡ Data mining & analysis ➡ Lead generation/routing
Service & Support	Customer self-service	➡ Communications channel/ call center management
Product Development	Direct customer feedback	➡ Product knowledge base integration
Distribution & Supply Chain	Direct information transactions	➡ Integrated management systems

The more an eCRM system is used, the better the return on investment.

As Web use becomes a way of life for more and more people, online customers' *demands are increasing* and their *tolerance for internal communications deficiencies is decreasing*. Customers want instant gratification, and if they can't get it from your company they will go elsewhere. In fact, defecting to a competitor is easier than ever, and researching options is a breeze, even for an inexperienced Internet user.

More than ever before, it is imperative that a company's various divisions share a single view of the customer, and *project a single view of the company back to the customer*. e-CRM systems, then, need to be designed fundamentally from a customer's perspective, and with a holistic approach to integrating lead generation, lead conversion and customer fulfillment processes.

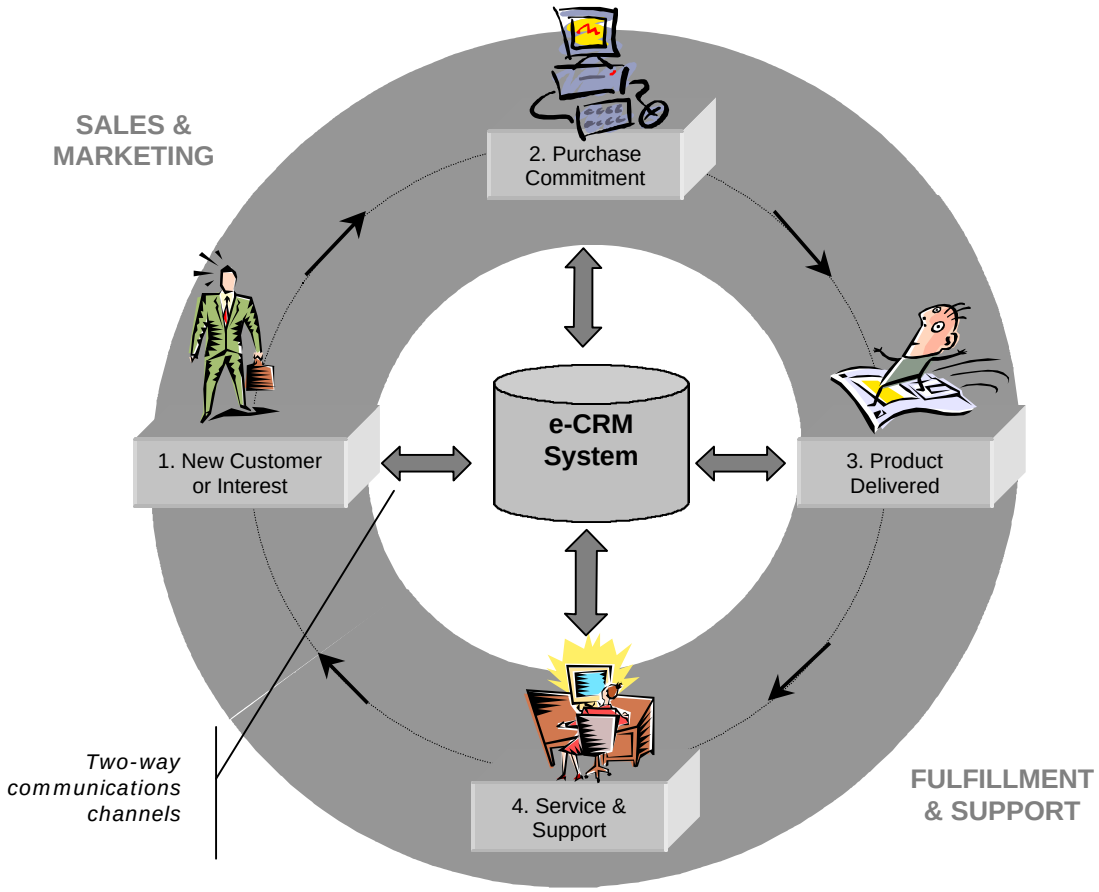

Figure 1:
eCRM as a Continuous Sales Cycle

Increasing ROI

The more complex a company's CRM needs are, the more difficult and expensive it is to implement e-CRM systems. However, once deployed, e-services are as easy to deliver to low-dollar customers as high-dollar ones, and the more customers served by automated customer services and transactions, the less costly per customer the system becomes.

❷ Success Criteria

The primary goal of e-CRM is met when e-services and transactions are more convenient and less expensive for customers. This in turn facilitates the company's fundamental goals: increasing revenues and reducing costs. Specific e-CRM initiative goals, then, can be viewed in the same terms:

Better online services result in increased customer satisfaction and retention.

Improved Customer Satisfaction

1. E-services are always available, accommodating any schedule
2. Services take less time to render, adding to customers' convenience
3. Orders can usually be processed and delivered more quickly
4. Online self-service is immediate, private, relevant, and easy to access (customers don't always have to go to the Internet to get help; e-CRM services can be integrated directly to users' desktops as well)
5. Customer feedback to the company is immediate, and customers are gratified by knowing they can easily communicate their needs
6. Automated software delivery eliminates users' having to monitor and update software applications
7. Shopping and purchasing is easier and more time effective than ever
8. Electronic services are generally free or cost less for the consumer

Reduced Operating Costs

1. Electronic automation results in companies' being able to render 24-hour services without incurring 24-hour operating costs
2. Use of more efficient data transfer technologies results in less expensive, more efficient communications
3. Automated sales systems result in lower cost-per-transaction for purchases
4. Shared knowledge bases result in greater accuracy and simplified processes in multidivisional collaboration
5. Easy viewing of customer behavior results in better business intelligence and better business decisions
6. Global data delivery systems result in drastic reductions in software packaging and distribution costs

Increased Revenue

1. Better customer satisfaction results in better customer retention
2. Online commerce transactions often enable broader market reach
3. Online services drive demand-generation mechanisms (e.g., the need to update software or upgrade software)
4. Dynamic metrics analysis tools provide real-time effectiveness reports for faster market response
5. The Web creates new sources of per-service and per-transaction revenues for many companies
6. Enhanced services can drive new sales; improved customer and business relationship management enhances value of deliverables

❸ Services-On-Demand

As the global base of regular Internet users continues to increase, so do online consumer expectations; better and faster services on a wider scale is part of every e-Business survival strategy. From new product information to service manuals, if it's not on the Web your staff will hear about it. But information services offered in an e-CRM environment are about more than posting static Web pages regularly; users need information to be easy to access, easy to browse and search through, and completely up-to-date.

State-of-the-art electronic relationship management solutions include a growing variety of services that are increasingly industry-focused. Users want and have come to expect specific services on demand, requiring that *information availability and transfer is a reflex, not a process*.

Better online services result in increased customer satisfaction and retention.

Online Information Services

Online information systems provided for users can include a variety of features, including automatically published content, user groups and bulletin boards, catalogs, event notifications, and other database-driven content. Information can also be delivered directly to users' PC screens or right to their printers. Online publishing can be also automated with content responsibilities distributed among departments or regions.

Simplified Searching

Smart search capabilities in an e-CRM environment can help customers to solve problems or find products more easily. Key word searching is a standard, but natural language search engines are also available, and many users find it easier to type in a sentence or phrase that narrows the search criteria and often requires less technical knowledge about the subject.
Multi-variable searching and step-by-step product fitting are ideal for online sales, particularly when numerous product options are available or custom quotations are required.

Customer-Directed Online Transactions

Commerce transactions on the Internet are now a standard expectation for customers, and less costly sales can be facilitated through efficiencies created by electronic technology. Well-planned and well-managed e-CRM systems can also provide new sales opportunities through a better understanding of customer behavior and more interactive involvement.

Online Technical Support

Technical support processes can be far more effective when users are provided with in-context Help information that empowers them to solve their own problems. Support technologies can include methods for self- and auto-diagnoses, automatic software updating, and direct interaction through connected devices. Ideally, a customer support Web site is easily available from the main company Web site via an obvious link or a customer support log-in.

Desktop Integration: Closer e-CRM

Providing a desktop icon for users can solve a number of problems associated with online support; desktop applications as the entrance to the customer service "corridor" offer immediate product and support information, and can connect with Web-based e-CRM systems when updates or transactions are required. This can in turn speed customer service issues, create sales opportunities and offer a closer level of support; with an integrated desktop application, the company has the ability to communicate directly with users through their desktops instead of just through email.

Information can be delivered right to customers' computer screens or even to their printers

Information and Software Updates

Customers also expect to be able to download current software from your Web site, but customers approving automatic updates can receive software updates during idle connected time.

Information can be added to users' desktop applications without user's instigating an update, and software can be updated transparently, depending on permission levels (which should be set by the users).

Call Center Integration

Web sites and desktop applications should connect with the call center, even if the connection must be loose in the initial phases of e-CRM deployment. Ideally an e-CRM system should begin with a common knowledge base and data structure, but if that's impractical for the first phase, call center integration can be as general as including links from with the e-CRM application.

e-Feedback Channels

Feedback directly from customers combined with pure metrics analysis delivers the business intelligence needed to continually improve online CRM services. Constant end-user feedback is part of an integrated e-CRM system, and immediate user feedback in e-CRM can do a lot more than make improvements; it can help detect costly mistakes early and provide insight into fixing problems.

Feedback collection and management following system deployment can be accomplished through a variety of types of field surveys such as Web site feedback forms, desktop message inquiries, and YES/NO questions following transactions and support activities. Large quantities of user feedback can be managed by administrative interfaces allowing managers to search for specific types of feedback over particular periods and view reports of users' responses.

❹ Intelligent Commerce

Electronic commerce is a closely integrated part of e-CRM. Understanding customer behavior and anticipating needs through online activities tracking provides the ability to offer users the right kind of sales information at the right time.

Whether from a new or an existing customer entering the system from the Web site, their desktop, CD or other commerce portal, all transactions in an integrated e-CRM environment share a common knowledge base driving a network application. A single product and customer database can be used for all sales channels, and distributed retail outlets and field sales operations can share the same system simply by being connected.

Personalization

The ability to customize network-based software and make it dynamic creates new opportunities to improve customer relationship management. Applications can "know" users' needs, creating a shorter path for sales and support activities. Customer interface aspects that can be personalized include:

Technology-enabled customer service and support creates sales opportunities.

1. The name or alias the customer uses; a personalized e-CRM system can recognize users and call them by name

2. The content available; content can be customized according to products the user has or as specified by the customer, so customers have the same apparent channel for support for any and all products they purchase

3. The look-and-feel and branding; many Web-based electronic service and commerce applications create different interfaces for different targeted demographic groups, providing the same features and using the same network server application

4. The level of interaction; e-CRM systems should allow users to decide when and how and when they receive and respond to sales information

Depending on the permissions allowed by the end user, a desktop extension of an e-CRM system can also provide additional intelligence about user preferences and activities.

Demand Generation

Part of the need for close collaboration across company functions is the inherent connection between sales and post-sales support. Technology-enabled customer service and support creates sales opportunities in the process of solving users' problems or returning information. A user trying to find a particular solution, for example, may be more inclined to purchase immediately if the solution offered in context meets the immediate needs of the customer and can be purchased (and often delivered) on the spot.

❺ An Online CRM Specification

The goals of e-CRM are not difficult to understand, nor are e-Business endeavors generally hard to cost-justify. Still, realizing a complete and fully-integrated e-CRM solution is a huge challenge, and the specification is the starting point—the blueprint for success of any system.

Knowing your customer is critical to an e-CRM system's success. Prior to developing a specification, companies implementing e-CRM should organize current customer data to completely understand the uniqueness of their segment's customers and their specific needs. Features defined in your specification will be in direct response to those defined needs.

Metrics showing costs of current customer sales, service and support channels will provide a referent for setting specific revenue and cost-saving objectives, including lead referrals, delivery costs, and costs per transaction for sales and support activities.

A specification is the blueprint for successfully implementing e-CRM.

Specification Considerations

Developing an effective e-CRM specification requires experience in network-based systems implementation, interface design, information architecture, and e-CRM applications. For a typical large company, generating a specification internally simply takes too long.

Still, in-house management and company-wide participation are required. Companies expecting to succeed with their e-CRM solutions need commitment from each department to develop a complete specification for e-CRM cannot move forward effectively. Piece-by-piece approaches are ultimately costly if individual systems don't fit compatibly into the whole.

Pressure from Sales & Marketing and Customer Service to deliver solutions quickly leads most implementers to a phased approach to e-CRM systems deployment. However, this can only work if *all systems are designed within the same specified platform and data structure, and all use the same knowledge base.*

Questions to Ask

QUESTION 1: <u>WHAT WILL OUR e-CRM SYSTEM DO?</u>
A preliminary specification should be discussed at the executive management level, determining the fundamental system goals and priorities, beginning with the basic question, *How will this system serve our unique customers?*

From the answers, a long list of specific functionality can be developed and a specific set of features defined. The resulting feature set is the preliminary specification that describes the scope of the e-CRM objectives, the starting point for a more complete specification development.

Once basic functional goals are determined, each department involved should be identified and a resource designated to represent that department or business unit's needs during the specification development process.

QUESTION 2: WHAT DO WE KNOW ALREADY?
The next question to address is what parameters can be automatically assigned. One general assumption that most e-CRM developers would begin with is that the e-CRM system be network-based and accessible from the Web. Other constraints may be product-specific or customer-directed, or based on demographics, budget and other strategic considerations.

QUESTION 3: WHAT WILL IT LOOK LIKE?
Based on the intent and the constraints identified in the first two questions, a system and information architecture can be specified and the user interface defined. It is critical at this point to know exactly what the system does and what information transactions need to occur to facilitate that functionality; mock-up interfaces provide clarity and detail for technical teams to completely understand system functions and data tables before they make implementation decisions.

Management must determine the fundamental goals and constraints in an e-CRM design

QUESTION 4: HOW DO WE BUILD IT?
Finally, specific technology solutions can be proposed. Vendors who have performed online customer service implementation should be able to offer a specific solution for the specification defined. A practical approach divides the final specification into two parts: *What we can do now* and *What has to wait*. Some aspects of an e-CRM solution can take months to develop, and in order to stay competitive, businesses have to provide online services as quickly as possible. Taking one step at a time allows them to begin executing their e-CRM Plan immediately, then add services as they are ready to integrate into the same system.

All e-CRM systems have to consider the three basic e-Business solution elements: software applications, network servers, and implementation and support expertise.

e-CRM Software

Integrating software applications is a basic requirement of technology-enabled customer relationship management. Ideally, a comprehensive, integrated software application would be better than a hodgepodge of unrelated applications, optimizing the functionality-versus-cost trade-off.

Forrester Research reports that veteran client/server CRM software programs will not suffice as a core e-CRM system engine because they are not Web-based and tend to manage customer records and workflow rather than managing relationships. Still, applications like SAP and Siebel lead in preference among IT managers surveyed by Forrester.

But Internet channel managers are inclined toward Web-based software such as BroadVision and SilkNet, which offer a whole new class of applications that attempt to build a real-time understanding of customers in a wider context.

In either case, integration of multiple applications is required. Customized Web applications for customer and partner interaction can be effectively built and integrated within the within the same, compatible environment using the same intranet- or extranet-based knowledge base as the internal client/server architecture. These customer-facing applications supplement internal client/server applications to serve specific e-CRM-related functions such as banner ad tracking, feedback management, or other transactions. Existing databases can be converted to provide the basis of the new, extranet-based Web system.

Application Servers and Network

The backbone of an e-CRM infrastructure is the network itself.

The backbone of a Web-based e-CRM application infrastructure will be the network itself. Network and server operations should be specified last to accommodate the needs of the software, database applications and content delivery requirements specified. The primary issues involved in server and network decisions are

1. Performance, especially where global content distribution and processor-intensive operations are a consideration.

2. Security, including firewall protection and intranet versus extranet considerations.

3. Reliability, especially minimized down time and removal of all single points of failure through redundant equipment and backup power

4. Backups, including a rotation strategy for backing up all databases, content and logs

Implementation Expertise

Depending on the extent of the e-CRM task, and disregarding specific industry expertise, at least four separate skill sets apply to a successful e-CRM deployment team:

1. Business development and project management
2. Content organization, management and publishing
3. Internet-based systems architecture and development
4. Interface design and cross-platform, multi-device implementation

Implementation plans should include an online system for file sharing and collaboration, as well as reviewing specifications, designs and other documentation.

Finalizing a Specification

Most companies turn to outside sources for implementing e-Business and e-CRM because of the wide range of skill sets required and the learning curve involved if an in-house team is assembled (often, consultants are brought in to develop a specification as well).

Vendor proposals can open up new methods and possibilities for e-CRM solutions

The caution here is that outside consultants are often predisposed to a particular solution or part of a company providing implementation services. A specification should focus on specific, high-value functionality rather than particular products or methods.

Properly defined specifications should be integrated into Requests for Proposals and sent to multiple vendors, creating more options for achieving the company's specified objectives before making a final commitment.

A final specification should describe the system well enough for a vendor to provide a complete proposal for the e-CRM solution described. Below are final checkpoints that e-Business or e-CRM specifications should address in order to receive a predictable solution in a realistic time frame:

e-CRM Specification		**Vendor Proposal**
1. Functionality requirements	➡	1. Implementation methods
2. Desired time frame	➡	2. Schedule with milestones
3. Content structure	➡	3. Electronic publishing plan
4. Content sources	➡	4. Communications strategy
5. Design requirements	➡	5. Design production plan
6. End-user requirements	➡	6. Application server & network
7. Compliance standards	➡	7. Adherence plan
8. Testing requirements	➡	8. Testing strategy
9. Q/A & approval needs	➡	9. Deployment plan
10. Security standards	➡	10. Security plan
11. Metrics requirements	➡	11. Reports definitions
12. Budgetary constraints	➡	12. Implementation cost
13. Maintenance role	➡	13. Maintenance costs
14. Evaluation criteria	➡	14. Customer service plan
15. Future requirements	➡	15. Vendor market focus

Companies specializing in online Customer Relationship Management should be able to demonstrate strong experience producing Web-based applications and have an implementation plan that addresses each of your requirements and specified features.

❻ Measuring Results

Positive results of a successful e-CRM implementation will be tangible, and reflected in metrics reports. Metrics analysis tools are available from a variety of vendors, but most e-CRM applications and solution providers will include or specify a reporting solution.

Ultimately an e-CRM system's impact can be quantified in terms of 1) value as customer service system (by measuring cost per user and customer satisfaction levels) and 2) Revenue growth. Evaluating costs per user, per lead and per transaction is relatively straightforward and calculable through client/server metrics reports.

Gauging customer satisfaction with an e-CRM system can be accomplished through field surveys that prompt users for feedback (electronically) provide insight into the effectiveness of specific customer sales and support objectives.

Application-Based field surveys are contained in the e-CRM application interface, typically accessible from the customer's desktop. A feedback form is easily accessible and available at all times.

The primary goal of an online CRM system has been achieved when services are more convenient and less expensive for customers.

Push- and pull-based systems provide questions dynamically to the user through an active Internet connection and implementation of a direct-to-user update technology such as BackWeb.

User responses can then be used to gauge the overall user experience, determine the effectiveness of the application and its services, and assist in product research and development. Most importantly, every single transaction in a true CRM environment, whether a sales- or a support-related transaction, is an opportunity to build loyalty and profit.

Web Associates is an Internet technology integration team specializing in implementing the e-CRM services outlined in this document. Web Associates has provided systems specifications development, production, and other services for Hewlett-Packard, lucent Technologies, DHL, Sybase, Apple Computer, and other top companies.

For additional information, please visit our Web site (http://wwwa.com) or call us toll-free at (800) 914-4615.

Works Consulted

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Related Research Papers

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Ten Success Factors for E-Business, IBM, 1999
Dot.coming the Enterprise, BancBoston Robertson Stephens, 1999
Electronic Customer Relationship Management, Pivotal Software, 1999
E-Commerce Evolution, Intershop, 1999

Online Resources

AC Nielsen	http://www.acnielsen.com
ActivMedia	http://www.activmedia.com
BroadVision	http://www.broadvision.com
CommerceNet	http://www.commercenet.com
CRM Community	http://www.crmcommunity.com
Forrester	http://www.forrester.com
Hamquist Research	http://www.hamquist.com
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