

# The New Paradigm of Web Technology

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## Abstract

This paper describes several technical aspects of web technologies. Whatever the inventions are made they are finally projected in the market by different companies and these companies with stand in market mainly for 2 reasons. The first one being the Quality of the product and the second one is Customer Relations with the Company. The Quality of the product is taken care by the core team of the company. So here in our paper we are much concerned with the Customer Relationship which integrates with 3 technologies CRM (Customer Relationship Management), Cloud (Azure/Amazon/Google) and CMS (Content Management System).

One more point that we want to quote here is that if we can make this as an open source CMS (Like Joomla, Drupal) where individual developers work on it and make individual modules then this type of services will go virally into use, so that both developers and the customers make a landmark in the Cyber History.

## Keywords

CRM, CLOUD, CMS etc...

## I. Introduction



Fig. 1:

1. Customer Relationship Management (CRM) is a model used for managing a company's interactions with customers, clients, and sales prospects. It involves using technology to organize, automate, and synchronize business processes.
2. The CRM is the software which is used to manage the Customer Relations Online (Like Messaging about new products, offers, greetings for occasions, online billing management for customers like providing billing histories etc.)
3. A Content Management System (CMS) is a computer system that allows publishing, editing, and modifying content as well as site maintenance from a central page. It provides a collection of procedures used to manage workflow in a collaborative environment. These procedures can be manual or computer-based. Another beauty in the CMS is that the administrator can add his desired modules, pages in the website where

ever needed. So by implementing this type of technology we will have the advantages of high upgrade time (due to cloud technology), good website design & effective modules (due to CMS), availability of more number of modules (as we keep it as open source, More number of developers keep there in the market place.) and better Customer Relationship Management.

4. Cloud computing refers to the delivery of computing and storage capacity as a service to a heterogeneous community of end-recipients. Cloud computing entrusts services with a user's data, software and computation over a network. It has considerable overlap with software as a service (SaaS). The use of cloud computing is that it can quickly scale to thousands of servers to make resources available as they're needed. So the cloud is taken to give high upgrade time. (Normal servers give upgrade time from 90% to 95% which means they may be for 30 days to 15 days downtime where as the cloud gives upgrade time from 99.99% to 99.999999% i.e., approximately 6 hours to 3 seconds down time... Considered for the whole year time)
5. CMS CRM is a Customer Relationship Management (CRM) system designed to help you effectively manage your customer base. CMS CRM enables you to implement a customer-centric focus within your business to maximize relationships with your customers and increase your business profitability through customer loyalty and marketing/sales opportunities. Store information about customers, contacts, products, prospects, sales, accounts plus lots more!

## II. Major CRM Systems and Major Components

Major CRM systems in the market today are Siebel, mySAP, and Oracle. Web-based software, such as Salesforce.com, is becoming very popular. Figure 1 shows a screen of the Salesforce.com. Major components of a CRM system include:

- Sales
- Call centers
- Sales force automation systems
- Order management
- Customer support

### A. Benefits of CRM Suite

- Insights into customer information across functions and product verticals
- Integration of Sales, Marketing and Customer Support functions.
- Real time information access for sales personnel and customer support staff - reduced response time
- Quick reporting and analysis

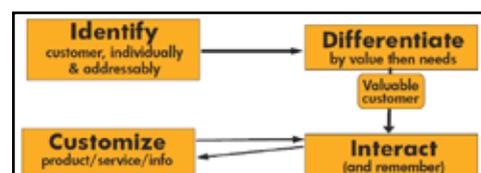


Fig. 2:

- The first stage in fig. 2, is to identify the client and understand client behavior with attributes in order to understand their needs, habits, and desires. The knowledge obtained in this stage is “fed” into marketing campaigns, treatment plans, and business strategies.
- The second stage and third stage in fig. 2, is to start managing the customer relationship by first performing direct customer interaction and then continually integrating all relevant interaction or dialogue that occurs across passive and active network of client channels or “touch points”. In order to dynamically maintain the client life cycle, the relevant client dialogue must be captured and customized for the best possible future action.
- Ultimately, the vision is to build a “one-to-one Enterprise” such that the most valuable customer is treated differently by providing customized products and services.

**III. CRM, CMS Systems and Cloud Computing**

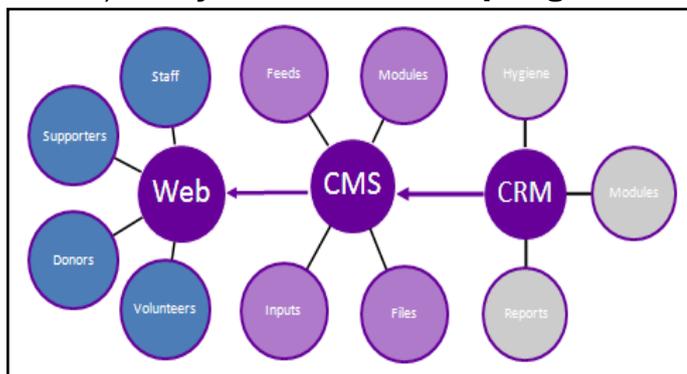


Fig. 3:

Content Management Systems (CMS) are great for managing and distributing content. They can handle and store large files, ensure constant branding and messaging, they are database driven and often come with “modules” or standard integrations to analytics, email software, e-Commerce or Customer Relationship Management (CRM) systems.

CRM systems are used for managing individual contact details and donations. They are also database centric, allow for data to be segmented, can personalize content to the audience and can handle large files.

The similarities between CMS and CRM systems are clear and can be leveraged for maximum impact.

Both systems:

- Store large files
- Organize data in a consistent way
- Allow data to be tagged and categorized
- Allow for a personalized user experience

**IV. The Benefits of Integrating Systems**

Integrating the CRM and CMS database is not always simple or straight forward, but does offer a number of benefits.

- You can tailor it how you want
- You can use a cutting edge CMS
- You maintain ease of content creation within the CMS
- You have secure, separate databases
- You can be more innovate

But I think there is one more important need for CMS integration, one that has to do with the trend towards cloud-based CRM deployments. In cloud or SaaS deployments, space in the CRM system is sometimes limited or simply a premium. You do not want

to clutter your system or “waste” CRM data space in your cloud deployment on storage hogs such as power points and PDFs.

But getting from here to there might not be easy. Some companies are overhauling the content management capabilities in their CRM systems. Others are rebuilding from the ground up. Still others are bolting on a mix of established social networking tools, such as Facebook and Blogger, to their existing CRM platforms.

There is a better way: the social knowledge network. These are socially managed central knowledge repositories that let organizations store, organize, manage, and share information needed to support sales and improve the customer experience. This provides users with a 360-degree view of content, which can be readily accessed, edited, and enhanced.

The result: Providers are going to have to broaden their offerings to incorporate cloud computing, social CRM, digital media and mobility, get into bed with specialist vendors that can offer specific functionalities or go the way of the Dodo bird.

**V. What’s a Content Management System (CMS)?**

Simply put, a CMS is a complete computer system that manages information. A CMS can be programmed in any computer language and run on any computer system. It allows data to be input, stored in a database, edited by authorized users, and displayed to the public

**A. How’s it work?**

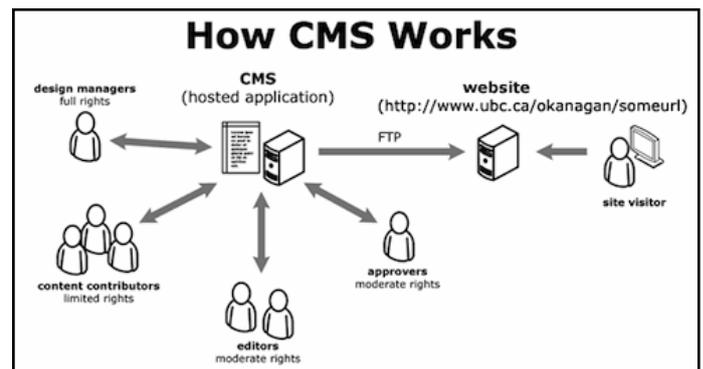


Fig. 4:

Easy to explain, First, understand that there are two computers involved in any internet transaction: the home user’s “client” computer, which sits on her desk at home or office, and the website’s “server” computer, which can be anywhere in the world (and often is). The client-side computer is called the “front end” and the server-side computer is called the “back end”.

With a CMS, the only program a user has to use is the internet browser like Internet Explorer or Netscape, and everything else is done on the server. After preparing the HTML, an editor uses the browser to upload and edit documents and the server software takes care of the rest. In other words, it’s almost a complete reversal of the old method! This puts all the burden on the website programmer, and relieves the home user of any technical knowledge.

Here’s the actual process:

- User goes to the website, logs in, and goes to an upload page
- User enters all text, with or without html formatting, into a form and clicks “submit”
- The form is sent to the server, where a back-end PHP script reads the data, processes it as required, and saves the data in a back-end database called MySQL.
- When a webpage is requested, the PHP script fetches the

relevant data from the MySQL database, adds any necessary html formatting, and generates a new html page on-the-fly. This page is what appears in the user's browser. It looks like a normal, manually-created html page, but is actually generated anew by the PHP code every time it is requested. It is not static, but is dynamic.

CMSs will lead users to accept a new paradigm, one in which the filesystem has been discarded in favor of a database backend which is interpreted by PHP and the HTML interface is created on-the-fly. In this paradigm data is nebulous and without fixed form. In our physics analogy it is a quantum reality, where content is only given shape in the process of interacting with it. It is thus an extremely flexible virtual world, where structure is created by interpretation and can thus be infinitely expanded, shaped, and delivered.

### B. Top 5 Open Source Content Management System

Here is 5 widely used and know Content Management system not in any particular order.

1. WordPress
2. Drupal
3. Joomla
4. Text Pattern
5. Movable Type

Follow this link if you want to get into more detail.

Most of the information used in this article is based on Wikipedia, Google search and the application's website. If there is error in the information, please feel free to add it in the comment so we can update it.

### VI. Conclusion

In the current situation of global economic slowdown, an effective CRM strategy can play a vital role in the success of organization. Getting closer to customers and effectively responding to their needs is a great way to boost their loyalty and encourage deeper business relationships. Software solutions and new technologies may facilitate the new ways of working required by a CRM strategy. One such technology used to improve CRM strategy is to integrate CRM with cloud computing through content management system. The objective of this paper is to explain about the importance of CRM and its major components, how CMS works and various advantages of integrating CRM with CMS through Cloud computing. Finally customer and Developers access the information through cloud and customize their information/products on fly (Cloud).

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