

WEB CONTENT MANAGEMENT SYSTEM; A PERISCOPE AT JUST TALK LAGOS

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Abstract

People agree that maintaining a website is an ongoing task; many are caught off guard by just how quickly the task can grow often ending up being more costly than building it in the first place. As more and more people use website, the number of update can only grow and information that appears out of date could sent customers elsewhere. Paying your site designers a retainer to be available for update is one option, but experience has shown that this becomes extremely frustrating- every change must be explained to someone neither who is nor familiar with site, can charges rarely be done as quickly as required. Content management is so important to incorporate into a site; it ensures a quick update of site without affecting any of the graphics or site structures. This means that web site will grow with needs into the further. This content management to also the organizing , categorizing and structuring of information resources (text, images, document etc) so that they can be stored, published and edited with ease and flexibility. Content management system (CMS) is used to collect, manage and publish contents, storing the content either as components or whole documents. It is also maintains dynamic links between components. This entails s combination of a web development software or language which could be macromedia dream we ever and HTML (Hypertext mark language) , a server sided scripting language such as Perl pretext preprocessor (PHP) or active server pages (ASP) and a Relative Database management system(RDBMS).

Introduction

Just Talk Telecommunication is an information technology firm that load phone credits facilities over the internet. Just talk employs a system whereby subscriber's private lines can be credited with a specific amount of voice data measured in kilobytes per second (KBPS), which is usually prepaid.

This is done over the internet from the company's website. Each private telephone operates (PTOS) are given a unique –ID for their phone lines. These codes are used to distinguish each PTO to the other. For instance, STARCOMS is identified with the cose-001 while a network like MULTILINKS is identified with 0101 with the system, subscribers of these OPTs. Network can load their phone lines with enough credit to make international calls at a cheaper rate than they would be charged by the PTO they subscribe to. The just talk telecom has an existing data which is a single database and various problems do come up in structuring of information resources, organizing and in the up grading of the system database. It cost so must for a website designer to design a new page for the site; this is where content management steps in.

The term content Management covers everything that has to do with information, whether that is producing, processing or presenting it. We live in the information age and that definition applies to a lot modern activities from printing newspapers to sky writing.

CONTENT MANAGEMENT SYSTEM AND DATABASE

Driven system that has a suite of tools that helps in managing, maintaining and changing the content of a web site. Content management system ideas is taken information and organize it that it is easily retrievable, update, flexible in how it can be reformatted and retransmitted and searchable.

The phrase “content management “ is more often than not, used to mean the work that business do with information, usually electronically stored information content stored manually is still content, but only the most pretentious office equipment store would advertise a filing cabinet as a content management system. When talking about content management it means information handled on a computer system, whether that information is customer orders, press releases or accounts increasingly. Content management deals with the information going into and out of a company’s website.

- The major problem associated with JUST TALK TELECOMS website development is paying website designers a retainer fee to be available for update of their site.
- There is always occurrence of duplication of phone numbers which is very confusing.
- There is always a manual update of tariff paid by the subscriber

INTENTION OF WORLD WIDE WEB

The basic functionality of the web can be understood in terms of large collection of independently operated server. It can simply be describe as server in which client tends to make request to. The client could be referred as web browser. A web browser is more than a graphical interface capable of issuing remote procedure or using protocol to establish a connection to a server by which to the file can be downloaded. Each request made to the server has a timeout. If the internet today plays an important role in the economy especial in the commerce sector where internet is being aggressively pursued by companies. The internet is known as one of the vast research environment for information, direct purchase and sale between companies. It was also proved employment to society of unemployed people.

FUNCTIONALITY OF CONTENT MANAGEMENT SYSTEM

The functionality of a content management system can be broken down into several main categories:

- ❖ Content creation
- ❖ Content management
- ❖ Publishing
- ❖ Presentation

Each of these will be explored in the following sections. The CMS manages the entire life cycles of pages from creation to archival

CONTENT CREATION

At the front of a content management system is an easy to use authoring environment designed to work like word. This provides a non-technical way of creating new pages or updating content, without having to know any HTML (Hypertext makeup language).

The CMS also allows for managing the structure of the site, which is where the pages go and how they are linked together. Many even offered simple drag- and drop restructuring of the site, without breaking any links.

Almost all content management system now provide a web-based authoring environment, which further simplifies implementation and allows content updating to be done remotely. It is this authoring tool that is the key to the success of the CMS. By providing a simple mechanism for maintaining the site, authoring can be devolved out into the business itself. For example, a marketing manager maintains the press release section while the product manager keeps the catalogue up date.

CONTENT MANAGEMENT

Once a page has been created, it is saved into central repository in the CMS. This stores all the content of the site, along the other supporting details.

This central repository allows a range of useful features to be provided by the CMS keeping track of all the versions of a page and who changes what and when. Ensuring that each user can only charge the section of

the site that is responsible for integration with existing information sources and 11 systems. Most importantly, the CMS provides a range of workflow capabilities for instance in a business environment when the page is created by the author, it is automatically sent to the manager for approval and then the central web team for their editorial review. It is finally sent to the legal team for their sign-off, before being automatically published to the site.

At each step, the CMS manages the status of the page, notifying the people involved and escalating jobs where required. In this way, the workflow capabilities allow more authors to be involved in the management of the site, while maintain strict control over the quality, accuracy and consistency of the information. Workflow rules bring order to the chaos of manual processes.

PUBLISHING

Once the final content is in the repository, it can be published out either the website or internet. Content management system boast powerful publishing engines, which allows the appearance and page layout of the site to be applied automatically during publishing. It may also the same content to be published to multiple sites; of course every site looks different, so the CMS lets the graphic designers and web developers specify the appearance that is applied by the system.

These publishing capabilities ensure that the page are consistent across the entire site and enable a very high standard of appearance. This also allows the authors to concentrate on writing the content by leaving the look of the site entirely to the CMS. The CMS fully automates the publishing of a site.

PRESENTATION

The content management system can also provide a number of features to enhance the quality and effectiveness of the site itself. An example, the CMS will build the site navigation for you by reading the structure straight out of the content repository. It also makes it easy to support multiple browsers or users with accessibilities issues. The CMS can be used to make site dynamic and interactive, thereby enhancing the site's impact.

CONTENT MANAGEMENT SYSTEM AND ORGANIZATION

The concept of web content management covers everything from an airline's online booking system to a university archives. But it is not just large companies and institutions that need good web content management, small business needs to employ good practice just as much, if not more. This page gives some tips for good web content management on a smaller scale.

Storage space

A web space is needed somewhere to host web page online. How much online storage space needed depends on how much information is needed to include on the site, the reason why the website is being created. It is just to make sure that people can find information about a company when searching online or is there a need for customers to be able to actually purchase products online? For a purely informational site, one will probably only need the minimum amount of web space (about 5MB) if there is a need to secure (encrypted) online shopping, you will probably need at least 25MB.

Hosting

Many ISPS (internet service providers) offer between 5MB and 15MB of web space free to their customers. However, most ISPS recoup their cost for the free services by placing banner advertisements on their customers' pages. This can be distracting for customers, so companies that want a professional, streamlined look for their sites usually end up paying for hosting. If you want less than 15MB web space, you may get it for as little as E5 a month. Many providers offer discounts on domain names when you buy the hosting shop around and ask many people as possible for hosting recommendations before making your decision.

Offline Storage

However, web content management is not just about where you keep your information online. WebPages need to have offline equivalents and back-ups. A complex, searchable site will be powered by a sturdy database, but even the simplest web page will be stored offline. At the very least, you should keep copies of HTML files for each web page. Then if the worst happens and your hosting company loses all your files

in a server crash, you will be able to reload them. See our page on web site content management for more about storing offline information.

Design

The golden rule for a small business is to keep it simple. A simple cluster-free site is much better than an over-designed fussy-looking one

Exiting System of telecommunication

Telecommunications refers to long-distance communication (the Greek tele means “far of”. At present, such communication is carried out with the aid of electronic equipment such as radio, Telegraph, Telephone and Television. In earlier times however, smoke signals, drums, light beacons and various forms of semaphore were used for the same purpose. The information that is transmitted can be in the form of voice, symbols, pictures or data or a combination of these. The physical equipment for a telecommunications system includes a transmitter, one or more receivers and a channel or means of communication such as air, water, wire, cable communication satellite or some combination of these. Loading of phone lines has always be done with the use of credit on a paper securities which are emended on these cards are less, anyone can easily retrieved these numbers and exhaust the credit on it. There are instants of missing credit card, expiring of valid card and blocking of lines on the process when trying to load credit cards. This is purpose of the present system, which will eliminate the problem.

SYSTEM ANALYSIS

There is need for a proper diagnosis of the present system, its functions, schema and short falls. This is an important aspect of the design of the new system, because the analysis of the existing system is needed for proper implementation of the new system.

The service of a system analyst is needed to adequately analyze the existing system; sometimes the programmer himself may assume this function. The analyst goes the extra mile of seeking information from the users of existing system. The analyst then gathers all user inputs and relates them programmatically to the programmer who does the final program implementation.

ANALYSIS OF THE EXISTING SYSTEM

System life circle:

A system life circle is determined by following these procedures:

- Preliminary study
- Feasibility study(Technical feasibility and Economic feasibility)
- Source of Data
- Description of the present system

Preliminary study

At present the system operating in Just-Talk Telecommunication is Microsoft Access based database of records. Though, a relational database system but needed to be redesigned to be implemented as a web program. The new system is design to help secure good and trusted web based software that helps to process record insertion, update and modification of customer’s records. This is implemented with the use of the content management system.

Feasibility Study

There is need for a proper study of the system to determine how feasible the new system can be. Before committing resources to the implementation of such project, judging from the resource committed to the existing system and the fields and entities comprising the system.

Technical Feasibility

At this stage, it is very important to determine if the proposed system can be technically achieved in terms of availability of hardware components and software development tools. The software and hardware

requirement of the proposed system are ones that are easily accessible from the local hardware and software vendors.

Economic Feasibility

The economic feasibility of the proposed system must be considered in term of the financial strength of just-talk telecom in purchasing the new software and hardware components. Also, the new system must be a good investment and yield optimal profit.

Analysis and design

From the previous study of the existing system and the requirements gathered from Evaluation from, personnel interviews, personal observation and procedural manual, it is evident that Just-Talk telecom present system has to be re-designed to grant it an internet presence and improve its operations. The system design will include input/output and segmenting these into the program.

Scope and stages of the design

Includes logging in authorized password loading phone number, crediting an account of a phone line, editing of account. The stages following the steps are:

→**Input** →**File organization** →**Output**

For the purpose of this work, a relational database will be used. A relational database is a database system in which a field in database is related to another field in a separate database. In this case Microsoft access is used.

This is achieved by first creating the database using Microsoft access before field is related. Relational database are exceptionally good because it eliminate the problems associated with data duplication and redundancy.

Input Design

Input is simple data or information that will be fed into the system from the keyboard to produce the deserved output.

In the design of the new system, the input to the system is accepted through a user-friendly web page and a database

FIELD/S/N	FIELD NAME	FIELD TYPE	FIELD WIDTH
1	Account Number	TEXT	15
	Last Name	TEXT	20
	First Name	TEXT	20
	Date of Birth	TEXT	10
	Company	TEXT	20
	Address	TEXT	20
	City	TEXT	15
	State	TEXT	15
	Country	TEXT	15
	Zip code	TEXT	10
	Telephone	NUMBER	11
	E-mail	TEXT	20

Output

This is simply the form, which the output (result or will take from the proposed system) the output is normally in form of a report. The report model would be daily and monthly. Also, output will be a customer’s statement of account, the total credit and the number of calls made on a day report is generated based on the query instituted.

Program platform (Program Justification)

Due to time constraints, the development platform for this program shall be Hypertext markup language (HTML) for the web design and a server sided scripting language such as an active server pages (ASP VB Script) however the program is developed in such a way that is machine independent and when installed in any computer it will run.

The execution of this program and steps involved are discussed under program implementation. Hypertext markup language (HTML), Active server pages (ASP VB Script) was chosen because they are user friendly, interactive and object-oriented software that can be used by almost anybody. Secondly, it is very good programming language for developing website and also deals with database management.

Flexibility is one of the major reasons for these choices. This ease of understanding and usage make them unique as a programming language, giving room for the development of user friendly application by means of visual input forms window-based menu, development and its ability to support the use of a mouse.

A good programming languages Hypertext markup language (HTML), active server pages (ASP VB Script) support object oriented programming (O.O.P), a feature which allows for the reuse of existing codes the feature of encapsulation, inheritance and polymorphism in a giving class.

Data Encapsulation

This is the act of binding a code or preparing codes to be sent as a package.

Data Inheritance

The act of reuse of data, avoiding the need invent a new wheel. The ability to reference or entirely use already existing codes to suite one self.

Data Polymorphism

The ability of a function to take many form. These languages allow for the linking of object through the feature of the object linking and embedding (OLE), this feature allows the direct input scanned (OCR) images.

Other outstanding features of this programming language include the ability to integrate with other application such as FOXBASE, FORPRO, Microsoft Access and other software. This is achieved using record set tools. The beauty of a programming language is the ability to handle a variety of data types; this is one unique aspect of ASP VB Scripts. One major advantage of ASP VB Scripts has over other programming languages such as foxpro, fortran is the fact that it has the facility to follow the program to develop and package installation disk using the application wizard. Finally, in ASP VB Scripts is simple a collection of project consistently of codes, forms, dialogues, boxes, event and controls.

Program Design

The design method used here allows logical flow of the program and to create room for easy error detection if there be any error. The program is developed to be web based and menu driven with each menu leading the user to a sub menu it also supports the use of a mouse.

Implementation of the new System

Planning and doing are separate parts of the same job and not separate jobs. No work can be performed exclusively unless it contained both elements. One cannot plan exclusively all the time. There must be at least a trace doing ones job, otherwise one's dreams rather than performs. One cannot above all, do only without a trace of planning his job, else the workers dies not have the control the needs.

There are several activities in the implementation of the new system. These include

- Testing of the program
- File conversion
- Training of personnel

Testing of the Program

At the end of the system stage, the programmer is given a program specification, which then aids in the design of the new system. After the program has been developed, there is need to test for reliability and accuracy of the output. This may require debugging.

File Conversion

At the design and testing of the new system, it is expedient to change over to new system.

Training of Personnel

People by nature are afraid of changes they do not understand, so in a bid to eliminate this for a training session must be organized. The training session should be organized to handle the following functions. An orientation and the importance of the new system as compared to the old, as well as the techniques and procedure that will bring about optimization of the new system.

Parallel Change over

This is a situation whereby the two systems; the existing and new runs together sides besides. The aim is to compare the result of the new system along side with the existing one to ensure that they are the scrim and any differences should be improvement on the old one. However output on P sale (Point of sale) will be relied on until the new system is fully certified that there is compute reconciliation of the system.

Phase Change over

The phase change over involves implementing the new system from department to another. It is dependent on the immediate need of the system in such area.

Direct Change over

The direct change over arise where the new system is implemented directly testing and certification.

Pilot Change over

In this case, sample transaction may be operated in parallel with the existing system followed by direct change over of the remaining application.

Documentation and Implementation

Documentation is very vital in the design and development of anything new. This is to create a proper guide to whoever may use new system in the headrest future. Documentation is simply a set of written description and explanation of a program for an organized data processing system. Basically there two types of documentation; namely system documentation and program documentation.

Conclusion

I would like to conclude that the research work if properly handled and used to its maximum capability, will definitely benefit both the organization. It also creates a new door for easier and faster web site designing and programming.

Recommendation

We are in an age where the need for information technology cannot be over emphasized; with the advent of Voice Over Internet Protocol (VOIP). It therefore important for the society to be sensitized about the many advantages of transferring packages over the website if they which to survive in the competitive world we find ourselves.

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