Memorandum Circular No. _____40_____
Series of 2004

SUBJECT: WEBSITE DEVELOPMENT AND MAINTENANCE GUIDELINES

I.   RATIONALE

The rapid pace of development of information and communication technologies (ICT) over the past decade has ushered in the Information Age. Millions of companies, organizations, institutions, and individuals use ICT as the primary way for information sharing and service delivery.

ICT has also brought about a new dimension in governance called e-Government. E-Government as described by the World Bank, is the use of ICT to improve the efficiency, effectiveness, transparency, and accountability of government. Specifically, it advocates the use of the Internet to enhance citizens' access to government services as it reduces limitations of time, distance and cost.

Based on the evaluation of Digital Philippines Foundation using the Five Stages of e-Government developed by the United Nations and the American Society of Public Administration (UN-ASPA), the Department's website has attained Stage Two (Enhanced Web Presence).

Thus, cognizant of the need for E-Government to ensure service to a wider range of clients/publics, this guideline is being issued to strengthen and enhance the Department's emerging Internet presence and achieve Stage Five (Fully Integrated Web Presence) of the UN-ASPA Stages of e-Government.

II.   LEGAL BASES

1. Administrative Order 332 (Series of 1997) - Directing all government agencies and instrumentalities including local government units to undertake electronic interconnection through the Internet to be known as the RPWEB.
2. Republic Act No. 8792 (Electronic Commerce Act of 2000) - An Act Providing for the Recognition and Use of Electronic Commercial and Non-Commercial Transactions and Documents, Penalties for Unlawful Use Thereof and for Other Purposes.

3. <u>Executive Order 265 (Series of 2000)</u> - Approving and Adopting the Government Information Systems Plan (GISP) as Framework and Guide for all Computerization Efforts in Government.
4. <u>National Computer Center (NCC) Memorandum Circular 2000-01</u> - Prescribing Guidelines for Planning and Managing the Agency's I.T. Infrastructure for Connection to Government Information Infrastructure Through RP-Web.
5. <u>NCC Memorandum Circular 2002-01</u> - Guidelines on Creation of the Agency's Official Website and Compliance to E-Commerce Law and Stage One of the UN-ASPA Stages of E-Government.
6. <u>NCC Memorandum Circular 2003-01</u> - Guidelines on Compliance to the E-Commerce Act (R.A. 8792) and Stage Two and Three of the UN-ASPA Five Stages of E-Government.
7. <u>NCC ICT Advisory 2003-02</u> – Creation of Sub-domain name for Websites of Regional Offices
8. <u>DSWD Memorandum Order No, 30 (Series of 2003)</u> – Constituting the Management Information System Service (MISS) of DSWD.

III. DEFINITION OF TERMS

The Definition of Terms found in Annex A shall be used, and shall form an integral part of this Circular. The Definition of Terms may be updated from time to time to reflect new hardware, software, services, and new perspectives in the field of Information Technology, particularly the Internet.

IV. SCOPE

This guideline covers all existing and planned websites for the Department's Central Office, Regional Offices, projects and attached agencies.

V. WEBSITE DEVELOPMENT AND MAINTENANCE GUIDELINES

<u>Stages in Website Development.</u> These six stages should be followed to impose consistency and structure in the development of a website.

    a. <u>Planning.</u> This stage identifies the areas, functions, target audience, user requirements, technical requirements, contents, timelines and project deliverables for the proposed website. Expected outputs of this phase are:

        i. <u>Project Proposal.</u> – This document specifies the need for the website and details cost estimates for the project.

ii. Requirements Document. This document determines all user requirements and hardware and software required in the development of the website.

iii. Project Timeline and Deliverables. This document sets a timetable for activities and expected deliverables of the project (Annex B). Responsibilities of both MISS and the Data Owner are also identified (Annex C).

b. Design. In this phase the website template is created. For all the proposed websites, MISS shall create a standard website template (Annex D) to ensure that the Department's corporate identity is maintained and that a general theme is followed for all DSWD websites. This includes the layout and design, color scheme, navigation, graphics and other elements of the site's look and feel. The following factors need to be considered in creating the website template:

i. Site Design – To achieve an effective website design, the pages on a website should be organized. It is a hierarchy with the most important page (the home page) on top and the subsidiary pages below. The web pages on a site are broken down into three main groupings namely the home page, main topic pages and subsidiary pages.

1. Home Page – This is the gateway to the website. It is the road map, the index, and the table of contents that tells visitors where to find the important information they need. It is the most important page of the site because it generally gives the visitor a first impression of the company or organization. A home page should look professional, ethical, artistic and appear to have useful content. A home page should convey three things to the visitor:

   a. The site's purpose – the who, what, when, where, and why;
   b. What kind of content is in the site; and,
   c. How to find that content.

   The home page should be less than 80 Kilobytes (KB) in size, and at the maximum should take 20 seconds to download at 56 Kilobits per second (Kbps).

2. Main Topic Page – The home page links to the main topic pages. These pages should contain consistent and coherent information regarding the topic indicated. It could also contain links to subsidiary pages which contain correlated information about the topic.

3. <u>Subsidiary Page</u> – Generally, these pages are subsets of a main topic page. It usually contains secondary information regarding a certain topic. From any subsidiary page, visitors should be able to go back to the home page or to any of the other main topic pages. Thus, a link to the home page should be included on all main topic and subsidiary pages. In addition all pages – home, main topic, and subsidiary pages – need to have links to the main topic pages on the website.

ii. <u>Website Content.</u> The crucial element of an effective presence on the Internet is good content. Websites developed should be rich in authoritative and up to date content which is well written, caters to the needs of the Agency's clients and is easily accessible.

The Agency should be aware of who the core and non-core audiences are for the website. A website should offer its audiences content that interests and educates. The content on the site should create experience.

iii. <u>Minimum Site Requirements.</u> Annex E enumerates the information and documents that must be published by websites of the Department, its regional offices, projects and attached agencies. This list may be updated from time to time.

Once this stage is complete, usability testing should be done to provide feedback on how well the website meets its projected goals. Usability testing (or user testing) involves having users who represent the target audience navigate through the website and perform specific tasks.

c. <u>Development</u> - The website is built during this stage. The website is created based on the requirements gathered and analyzed. It also includes converting content into Hyper Text Markup Language (HTML) and developing interactive features such as forms, email setup, online transactions and connections to backend systems. The expected output of this stage is a pilot version of the website.

d. <u>Evaluation</u> – Functionality testing takes place during this stage. This type of testing makes sure that the website functions as planned. The website is also checked for errors and inconsistencies. The website is then corrected/modified based on the test results.

e. <u>Implementation</u> - In this stage the website is made fully available on the Web. Users are also trained during this stage about the technical aspects of the website especially if it contains online transactions. A formal agreement is also obtained signifying the data owner's acceptance of the developed website.
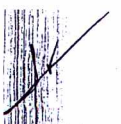
Once the website is developed, it shall be mounted unto the main DSWD Web Server. All websites developed shall be accessed through the main DSWD Website (http://www.dswd.gov.ph).

f. Maintenance - Websites require regular attention to ensure that they remain up-to-date and in a fully operational condition. Maintaining a website is very important to entice users to keep on visiting the site.

i. Update. To ensure that all information is current and useful to users, the website should be updated quarterly and/or every time new information for public dissemination is available (e.g. statistics should be monthly). MISS shall provide the Data Owner with a Content Management System allowing them to change the contents of their specific web pages at their own user-level. However no content may be altered removed or added without the approval of the Web Content Management Team.

ii. Technical Aspects. Its technical aspects must be checked, to ensure that all aspects of the site continue to function as they were designed to do (e.g. online forms, links to other sites, etc.). These should be verified quarterly to ensure its functionality. MISS shall take the lead in reviewing the technical aspects of the website.

iii. Website Evaluation. It requires evaluation to ensure that it continues to meet the needs of users. This shall be done by the Data Owner and all users (internal and external). All websites shall contain a tool (e.g. feedback form, survey sheet), which shall be developed by the MISS, that would allow external users to evaluate it.

iv. Sanctions. Failure to maintain the website will lead to the temporary suspension of the website from posting. Subsequent failures in maintaining it shall lead to the website's permanent deletion.

VI. WEB CONTENT MANAGEMENT TEAM

1. Composition.
   a. Overall. The MANCOM convening as the Information and Communications Technology Steering Committee will act as the Overall Web Content Management Team for the Agency.

   b. Field Offices (FO). Each FO shall have its own Web Content Management Team. The team shall be composed of the Regional Director and its 3 Division Chiefs and selected technical staff to include the designated Information Technology Officer/Information Technology Assistant.

   c. Attached Agencies. Attached agencies shall also form their own Web Content Management Teams composed of its Executive Director (or Deputy), Head of each Divisions and the IT designated staff/s.

2. Function.

   a. MANCOM. The MANCOM has the power to approve, review and recommend changes to the contents of all the Department's websites. They have the power to mete out appropriate penalties for non-compliance.

   b. FO and Attached Agencies Web Content Management Teams. These teams have the power to approve, review and recommend changes to the contents of their respective websites.

VII. EFFECTIVITY

This circular takes effect immediately.

Issued in Quezon City this 3rd of November 2004.

Corazon Juliano-Soliman
Secretary
Department of Social Welfare and Development

A CERTIFIED COPY:

CARMELITA B. ZAFRA
Chief, General Services Division
and OIC, Records Unit

Agency – The Department of Social Welfare and Development; or any of its offices or institutions.

Bandwidth – this is the range of signal frequencies that can be carried on a communication channel. It is measured in cycles per second, or hertz (HZ) between the highest and lowest frequencies. This is more commonly expressed as bits per second (bps).

Data Owner – Organizational unit for which the website was developed and performs majority of the functions of the website.

Domain Name - A name that identifies one or more IP addresses. For example, the domain name *microsoft.com* represents about a dozen IP addresses. Domain names are used in URLs to identify particular Web pages. For example, in the URL *http://www.pcwebopedia.com/index.html*, the domain name is *pcwebopedia.com*.

Every domain name has a suffix that indicates which top-level domain it belongs to. There are only a limited number of such domains. For example:

- **gov** - Government agencies
- **edu** - Educational institutions
- **org** - Organizations (nonprofit)
- **ph** – Philippines
- **com** - Commercial business
- **net** - Network organizations

Because the Internet is based on IP addresses, not domain names, every Web server requires a Domain Name System (DNS) server to translate domain names into IP addresses.

DNS - Short for *Domain Name System* (or *Service* or *Server*), an Internet service that translates domain names into IP addresses. Because domain names are alphabetic, they're easier to remember. The Internet however, is really based on IP addresses. Every time you use a domain name, therefore, a DNS service must translate the name into the corresponding IP address. For example, the domain name *www.example.com* might translate to *198.105.232.4.*

The DNS system is, in fact, its own network. If one DNS server doesn't know how to translate a particular domain name, it asks another one, and so on, until the correct IP address is returned.

Hardware – the electronic and physical components, boards, peripherals and equipment that make up a computer system as distinguished from the programs (software) that tell these components what to do. It is the physical component that consists of input devices, central processor, output devices and storage devices.

HTTP - Short for *HyperText Transfer Protocol*, the underlying protocol used by the World Wide Web. HTTP defines how messages are formatted and transmitted, and what actions Web servers and browsers should take in response to various commands. For example, when you enter a URL in your browser, this actually sends an HTTP command to the Web server directing it to fetch and transmit the requested Web page.

The other main standard that controls how the World Wide Web works is HTML, which covers how Web pages are formatted and displayed.

Internet- an electronic communications network that connects

computer networks and organizational computer facilities around the world

IP Address – An identifier for a computer or device on a TCP/IP network. Networks using the TCP/IP protocol route messages based on the IP address of the destination. The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be zero to 255. For example, 1.160.10.240 could be an IP address.

Kilobyte - Short for kilobyte. When used to describe data storage, *KB* usually represents 1,024 bytes. When used to describe data transfer rates, *KB* represents 1,000 bytes.

Kbps - Short for *kilobits per second,* a measure of data transfer speed. Modems, for example, are measured in Kbps. Note that one Kbps is 1,000 bits per second, whereas a KB (kilobyte) is 1,024 bytes. Data transfer rates are measured using the decimal meaning of *K* whereas data storage is measured using the powers-of-2 meaning of *K*. Technically, *kbps* should be spelled with a lowercase *k* to indicate that it is decimal but almost everyone spells it with a capital *K*.

Online - Turned on and connected. For example, printers are online when they are ready to receive data from the computer. You can also turn a printer offline. While the printer is offline, you can perform certain tasks such as advancing the paper, but you cannot send data to it. Most printers have an online button you can press to turn the machine on- or offline.

Users are considered *online* when they are connected to a computer service through a modem. That is, they are actually *on the line.* The term also is spelled as *on-line.*

Software – a set of instructions to a computer to execute a command or process data. It is the non-physical component of a computer, which maybe an operating system, a development language, database management system, computer tools and utilities, or an application package, as well as the machine coded instructions that direct and control different hardware facilities.

URL - Abbreviation of *Uniform Resource Locator,* the global address of documents and other resources on the World Wide Web.

The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located.

For example, the two URLs below point to two different files at the domain *pcwebopedia.com.* The first specifies an executable file that should be fetched using the FTP protocol; the second specifies a Web page that should be fetched using the HTTP protocol:

- ftp://www.pcwebopedia.com/stuff.exe
- http://www.pcwebopedia.com/index.html

User - An individual who uses a computer. This includes expert programmers as well as novices. An *end user* is any individual who runs an application program.

Web Hosting – The business of housing, serving, and maintaining files for one or more websites.

Web server – A computer that delivers Web pages. Every Web server has an IP address and possibly a domain name. For example, if you enter the URL http://www.webopedia.com/index.html in your browser, this sends a request to the server whose domain name is webopedia.com. The server then

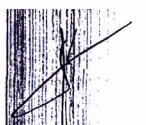fetches the page named index.html and sends it to your browser.

Any computer can be turned into a Web server by installing server software and connecting the machine to the Internet. There are many Web server software applications, including public domain software from NCSA and Apache, and commercial packages from Microsoft, Netscape and others.

Web Site - A site (location) on the World Wide Web. Each Web site contains a home page, which is the first document users see when they enter the site. The site might also contain additional documents and files. Each site is owned and managed by an individual, company or organization.

World Wide Web - A system of Internet servers that support specially formatted documents. The documents are formatted in a markup language called HTML (*HyperText Markup Language*) that supports links to other documents, as well as graphics, audio, and video files. This means you can jump from one document to another simply by clicking on hot spots. Not all Internet servers are part of the World Wide Web.

There are several applications called Web browsers that make it easy to access the World Wide Web; Two of the most popular being Netscape Navigator and Microsoft's Internet Explorer.

World Wide Web is not synonymous with *the Internet*.

Annex B
Sample Timeline for Website Development

STAGES IN WEBSITE DEVELOPMENT

STAGE	Week 1	Week 2	Week 3	Week 4		Week 1	Week 2	Week 3	Week 4		Week 1	Week 2	Week 3	Week 4		Week 1	Week 2	Week 3	Week 4	Responsibility	Deliverables
PLANNING	■	■																		DATA OWNER (PRIMARY) MISS (SECONDARY)	Project Proposal Requirements Document Project Timeline and Deliverables
DESIGN			■	■																MISS	Website Template Website Contents
DEVELOPMENT						■	■	■												MISS	Pilot Version of Website
EVALUATION											■	■								DATA OWNER (PRIMARY) MISS (SECONDARY)	Evaluation Report Edited Version of Website
IMPLEMENTATION																■				MISS	Live Website
MAINTENANCE																	Maintenance is a continuous process → →		DATA OWNER (PRIMARY) MISS (SECONDARY)	Regular Maintenance Report (e.g. Monthly or Quarterly)

Note: In the "Week" header columns, each "Week" group is divided into sub-columns numbered 1, 2, 3, 4.

Stages	Activities	Objectives	Responsibility				Expected Outputs
			Data Owner	MISS	Web Content Management Team	EXECOM	
I. Planning	Conduct Preliminary Study/Proposal	To identify areas/functions covered by the site	Sole			Approval of proposal	Approved Project Proposal
	Identify user requirements	To identify the target audience, contents needed, and features of the website	Sole		Approval of contents to be posted		Requirements Document
	Identify hardware and software requirements	To identify hardware and software needed for the development of the website		Sole			
	Set timelines and project goals	To create a timetable for activities and deliverables of the project	Joint	Joint			Project Timeline
II. Design	Create standard webpage template	To design the site's look and feel	Approve proposed template	Sole			Website Template
III. Development	Create the website	To create the website based on requirements gathered and analyzed in stages 1 & 2		Sole			Program code and website prototype
	Develop interactive features	To create interactive features		Sole			Functional online transactions
	Documentation	To create a user's manual and website documentation		Sole			User's Manual and Website Documentation
IV. Evaluation	Test functionality of website	To test the site for errors	Joint	Joint			Evaluation Plan
	Debugging	To fix errors discovered		Sole			Bug-free website
	Modifications	To make changes based on site evaluation		Sole			
V. Implementation	Website launch	To make site fully available on the Web		Sole			Fully functional website
	User training	To train users regarding the technical aspects of the site particularly if it has online transactions.		Sole			Trained users
	User/Data Owner Acceptance	To obtain a formal agreement on the acceptance of the site	Joint	Joint	Joint	Joint	Formal Agreement
VI. Maintenance	Update of website contents	To update information on the website	Primary		Approval of contents to be posted		New Information
	Respond to queries or comments	To answer queries/comments submitted by users	Primary				Matrix on comments/queries responded
	On-going site maintenance	To conduct continuing site maintenance		Primary			Maintenance report

Responsibility Matrix on the Stages of Website Design and Management

Annex D

Website Template

Department of Social Welfare and Development
Republic of the Philippines
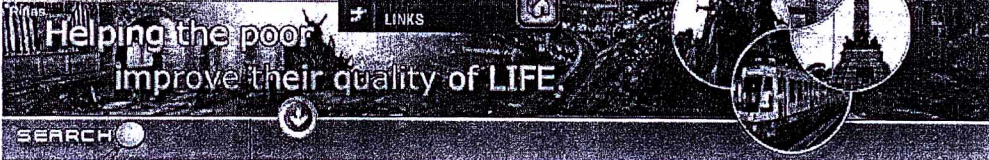
NCR
National Capital Region
TULONG! SULONG!

RD's CORNER
ABOUT US
PROGRAMS/PROJECTS
PUBLICATIONS
DOWNLOADS
CONTACT US
LINKS

Helping the poor improve their quality of LIFE.

SEARCH

[   ] [Go]

CHECK E-MAIL
WebMail

REPORT MISSING CHILDREN
E-TEXT TO:
0918.933.3793

ONLINE APPLICATIONS
CLICK HERE TO DOWNLOAD

PLEASE SIGN OUR GUESTBOOK

Test Page Two

NCR at a Glance

Out there, in a coastal barangay of the "lake town" of Jabonga in Agusan del Norte, a dream has been realized. The barangay residents called this dream, the San Vicente Marketing Center.
A project of the community funded by the Kapit-Bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services: Kapangyarihan at Kaunlaran sa Barangay (KALAHI-CIDSS):KKB Project of the DSWD, it aims to decrease the poor economic condition of the community by reducing the time, energy and resources usually spent by the people in buying their basic commodities

Full Story

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DISASTER MONITORING

POLL SURVEY

You have already voted in this poll.
How do you rate this new website?
excellent ▬▬▬▬ (53.2%)
very satisfactory ▬▬ (16.5%)
satisfactory ▬▬ (12.7%)
needs improvement ▬▬ (17.7%)

Total votes: 79