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AGENCY CONTACT MEMORANDUM #9708-02

TO: Agency Contacts

FROM: Stephen N. Dooley, Commissioner
Department of Information Systems 

DATE: August 19, 1997

SUBJECT: Internet / Web Publishing Policy

Attached are the "Internet / World Wide Web Publishing Policy, Procedures, Standards and Guidelines" developed by DIS with input from state agencies and the Kentucky Information Resources Management Commission (KIRM).

This document sets forth current policies and procedures for publishing information on the Internet, with specific reference to the Web, and provides style standards and guidelines for Web publications. In addition, it describes services available from DIS in this arena and procedures for requesting them. It also offers a number of tips and techniques which should prove useful to agency Web publishers and provides references to additional information resources.

If you have any questions or comments related to topics covered here, please contact your agency consulting team representative, or Robin Robertson, Internet Project Leader, at (564-5997) or (rrobert3@mail.state.ky.us).

We hope that this assists you in your Web publishing projects.

Department of Information Systems

POLICY/PROCEDURE

Policy Number: DIS-063

Effective Date: 08/01/97

Revision Date:

Subject: Internet / World Wide Web Publishing Policy, Procedures, Standards, and Guidelines

INTRODUCTION

Purpose

This document sets forth current policy and procedures for publishing information on the Internet with specific reference to the World Wide Web (WWW), provides Web style standards and guidelines, and includes references to additional information resources.

Scope/Applicability

These policies, procedures, standards and guidelines apply to Commonwealth of Kentucky employees publishing on the Internet in the course of their duties utilizing State resources, as well as to other entities specifically granted permission to use these facilities by the Commonwealth.

For additional information regarding appropriate use of these facilities, see Department of Information Systems (DIS) Policy # DIS-060, "Internet and Electronic Mail Acceptable Use Policy." This policy was distributed to all State agencies as Agency Contact Memo #9605-03 and is available in PDF format on the Internet via the DIS home page at (<http://www.state.ky.us/dishome.htm>). Consult your internal management for any additional directives specific to your agency or organizational area.

Note: DIS is currently developing an Intranet for testing and has begun developing Web-enabled applications. Policies and procedures regarding Intranet and Web-enabled applications development and use will be available in the near future.

Publishing Policy/Procedures

This section describes the various policies and procedures developed to date concerning publishing information on the Internet, particularly the World Wide Web. For the convenience of the reader, any DIS procedures relating to each policy statement appear immediately after it.

Who May Create a Home Page?

- Home pages may be created by any officially constituted State government entity such as a Cabinet, Department, Commission, etc.

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- To avoid 'splintering' information and making it difficult to locate as well as to avoid redundancy and possibly conflicting information, DIS advises that individual organizational units coordinate their home page development with their agency's upper management. If an agency requires its own server for Web development, organizational units considering establishing a server for this purpose should also consult their agency's upper management prior to purchasing a separate server, to promote efficient sharing of resources. Ideally, each Cabinet / Department would establish a server capable of housing all of the publishing and related Internet activity for sharing across the Cabinet / Department.
- Other entities, i.e., quasi-governmental and/or local government entities wishing to do so, may apply for permission to publish on the Commonwealth's Web server (which is supported by DIS) at the "Address for Requests" at the end of this section. These applications will be evaluated on a case-by-case basis. For additional information to assist in making this determination, contact Robin Robertson, Internet Project Manager, at the "Address for Information" also at the end of this section.

Agency Responsibility for Information and Linkages

- As stated in the acceptable use policy previously referenced, the responsibility for information published on the Internet /Web lies with the originating agency's upper management, as is the case with traditional, hard copy documents.
- Agencies are responsible for observing all applicable statutes, rules and regulations governing copyrights, trademarks, privacy and confidentiality.
- Normal agency approval channels should be followed with Internet /Web documents as with other State Government publications.
- Agencies are also responsible for keeping the information they publish on the Internet / Web current.
- All agencies must notify DIS when they are preparing to publish a new Web home page and/or establish a new Web server. (Notifications should be sent on a DIS F180 to the "Address for Requests" at the end of this section.) DIS will then provide the initial 'front door' link from the Government Information home page to the agency's home page and/or the agency's server, as appropriate.
- All agencies are responsible for providing certain standard information on each of their Web pages to assist Commonwealth Web site visitors in locating information and navigating the site. To facilitate providing this information in the designated format, DIS has developed a standard Web page template (located at <http://www.state.ky.us/kystandards>) as a convenient tool for agencies to use to implement these standards.

- DIS recommends that the most efficient way to implement these standards is to use the template for new page development and add its standard elements to existing pages as they are updated, rather than attempt to redesign all existing Web pages at once. Specific Web page standards follow:
 - In order to provide a reliable, consistent navigational tool, the standard navigation bar (incorporated in the template and also available separately in the standards directory referenced above) must appear on all agency Web pages. (This bar contains pre-established links, i.e., to the Commonwealth's home page.) The preferred location for the navigation bar is at the top of the page. However, the bar may be positioned elsewhere in order to better complement the agency's page design as long as it consistently appears in the same location on each agency Web page. The appearance of the bar (size, background, color typefaces, etc.) may be varied to enhance agencies' design schemes.
 - Agencies must also include all footer information (appearing at the bottom of the template and available separately in the standards directory, as well) including an E-mail address for and a mail link to the agency Webmaster, at the end of all their Web pages. However, they may elect to provide additional information.
 - In addition, agencies must include a method of linking to the agency's home page at the bottom of each of their Web pages (with the exception of that home page, itself). To assist in this, DIS has also provided a "Link to [the agency's] Home Page" icon along with the footer information format in the standards directory. Agencies may either use this icon or design one of their own for this purpose. If an agency opts to design its own icon for this purpose, it should be appropriate to the agency and consistent throughout the agency's site. Agencies are responsible for establishing and maintaining this link.
 - Agencies are encouraged to provide icons and links to the next highest level of their site from all their Web pages.
- Outside of the above-referenced format stipulations for Web pages, agencies are encouraged to creatively apply the principles of good design to their sites to make them visually interesting, as well as informative. As mentioned, the appearance of required format elements may be varied to better complement the agency's page design, as long as all required elements are included on all the agency's Web pages. As always, style should be appropriate to content and professionalism is of the utmost importance, since all agency Web pages reflect on the image of the Commonwealth. (See "Structure and Style Standards and Guidelines," and "Additional Information Resources," in this publication for further discussions of style and design considerations.)

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- Agencies are also responsible for links from their Web home pages to other sites and for verifying that these links remain current and are appropriate business-related sites. The agency retains the responsibility for specifying links to be made and for periodically verifying whether or not they are current and operational even if utilizing DIS services for Web development. (In this case, they would advise DIS that a link needs to be reestablished and specify the new destination. DIS would then establish the link.)

Agency Coordination Role

Before DIS links a new Web home page to the Commonwealth's home page, agencies or other organizational units publishing on the Web must designate an individual who will serve as a focal point for matters relating to that home page.

This individual would be responsible for:

- Serving as a focal point for responding to inquiries / input from Internet / Web users,
- Coordinating the gathering of Internet / Web information within his / her organizational unit,
- Acting as a liaison to DIS for matters relating to the Internet / Web publishing activities of the organizational unit he/she represents, including insuring that any information provided to DIS for publishing is presented in the appropriate electronic format,
- Verifying that information is current at publication time and periodically thereafter, as well as insuring that links to additional information are regularly checked and the appropriate steps are taken to update any outdated links. By seeing that links are established to other relevant information and properly maintained, agencies can insure that users can find other supplementary Kentucky information.

DIS recommends that agencies integrate Internet / Web publishing into their organizational unit's existing publication cycle. The Internet simply provides another tool or medium (although a highly powerful one) for publishing and/or disseminating information.

DIS Coordination Role/Web Publishing Services Provided

Internet technology provides a major facility for publishing, data access, and connectivity for the Commonwealth. Because this technology consists of distributed components which are linked / interfaced to appear as one logical whole, a centralized coordination role is required. DIS provides a number of Internet coordination services. Some of the key ones which pertain to publishing on the Web, as well as the policies and procedures related to them, follow:

- DIS maintains the Commonwealth of Kentucky's World Wide Web (WWW) home page as well as the Government Information home page and provides links from the Government

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Information home page to other home pages, as appropriate. (Again, all agencies are responsible for notifying DIS when they intend to publish home pages on the Web and when links need to be revised, so that the appropriate links to their home pages from the Government Information home page can be established and maintained. By doing this, agencies can insure that their information will be readily accessible to Web users.)

- To facilitate access and to provide an organizational view of Kentucky State Government information on the Web, DIS will maintain a set of upper-level agency organizational charts, depicting Cabinets and their constituent components, with links to agency home pages. (A Department will be the lowest level shown.) Agencies are responsible for notifying DIS of any updates and/or changes to these charts. Agencies are also responsible for any lower-level organizational charts they may wish to add to their sites and for any additional links from organizational charts, whether or not they utilize DIS services to establish these.
- DIS maintains a dedicated, high speed Internet connection and functions as an Internet provider for state government and grades K-12. This connection is accessible via the Commonwealth Integrated Network System (CINS), which DIS also supports and maintains. (To request a CINS connection, send a DIS F180 to the "Address for Requests" at the end of this section.) DIS also has price contracts with volume discounts on Internet software (i.e. FTP's OnNet).
- Agencies are encouraged to connect to CINS to take advantage of this Internet connection, if at all possible. There are particular cost advantages for agencies already connected to CINS in utilizing this connection, whether or not an agency decides to maintain its own Web server, in that most Internet access costs are already included in the basic CINS rate. Also, agencies electing to maintain their own Web servers are encouraged to connect these to CINS, both for reasons of cost-effectiveness and to insure timely access to their Web data. (Please note that even if agencies contract with private vendors for Web development services, they can still house those Web pages on servers which reside on CINS.)
- DIS provides site registration within domain name services (DNS) for agencies which have Web sites on CINS. To obtain site registration services, send a DIS F180 to the "Address for Requests," at the end of this section. There is no charge to register subdomains or servers in DNS. Please remember to register domains and servers and to let DIS know of any changes affecting DNS entries, as DNS affects access to your site and Internet mail. To request domain name changes or additions, please fill out the form at <http://www.state.ky.us/dnsform.htm>.
- DIS can provide Web publishers with start-up assistance as well as continued consulting / applications development services and space on its Web server(s) at a competitive, low rate, for agencies who do not wish to maintain a Web server of their own. For specific cost information and methodology for requesting these services, see your DIS Agency Consulting Team representative. Long-term development requires that the agency submit a

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DIS F001. Agencies wishing to utilize the DIS Web server, but who plan to do their own site development and maintenance, will need to request user ID's for server access. To do this, fill out the form available at <http://www.state.ky.us/applform.htm>.

- DIS provides training in a growing number of Internet subjects. Agencies are encouraged to take advantage of this and other training provided in the industry. Tutorials can also be found on the Web itself. (See "Additional Information Resources.") Classes in HTML (the basic language used to publish information on the Web) are available from the DIS Systems Training Branch. Agencies requesting HTML training should follow normal DIS Systems Training Branch policy / procedures.

Address for Requests

In order to provide a central site for request tracking and referrals, unless otherwise specified in this document, all requests for Web publishing activities/services described in this document should be addressed on a DIS-F180, "Procurement Request," to:

Pauline Clark
Office of the Commissioner
Department of Information Systems
101 Cold Harbor Drive
Frankfort, Ky.
Phone: (502) 564-7777
FAX: (502) 564-6856

Address for Information

For additional information / inquiries, contact:

Robin Robertson
Internet Project Leader
Department of Information Systems
101 Cold Harbor Drive
Frankfort, Kentucky 40601
Phone: (502) 564-5997
Fax: (502) 564-1598
MS Mail: Robin Robertson in the Global Address List
Internet E-mail: rrobert3@mail.state.ky.us

Structure and Style Standards and Guidelines

Standards

- As mentioned, agencies are required to include certain components and information on all of their Web pages to assist Commonwealth Web site visitors in navigating our site and to insure that pertinent information (last date updated, whom to contact for information, etc.) is readily available.
- To assist agencies in accomplishing this, DIS has developed a standard Web page template, located at (<http://www.state.ky.us/kystandards>). This subdirectory also contains separate navigator bar and footer electronic formats.
- Because many Web pages have already been published, DIS recommends that the most efficient way to implement the new standards is to use the template for new page development and to incorporate its required elements in older pages they are updated. This avoids attempting to convert a large backlog of existing pages at one time. However, implementation methodology is at the discretion of the agency as long as all required elements are incorporated in all agency Web pages. Required elements are summarized in "Agency Responsibility for Information and Linkages." A more detailed description of them with some examples and techniques for implementing them follows:
 - The standard navigation bar must appear on all agency Web pages. Agencies are required to use the bar located at (<http://www.state.ky.us/kystandards>, since this bar contains pre-established links, i.e., to the Commonwealth's home page. The bar can be copied for incorporation into agency publications. The top of the Web page is the preferred location for the navigation bar. However, it may be placed elsewhere on the page to better complement the agency's page design, as long as the location of the bar is consistent throughout the agency's site.
 - Agencies must also include at least the minimum information appearing at the bottom of the template at the end of all of their Web pages (with the exception of the 'Link to [the agency's] Home Page' icon on the agency's home page itself). Additional information may be added at the agency's discretion, i.e., if additional information is available on specific Web publications, the agency may choose to include the E-mail address of the in-house expert in the document.
 - Please note that information required at the end of each Web page includes an address for and a mail link to the agency Webmaster. DIS recommends that this E-mail address be a generic, rather than a personal address, to assist the agency Webmaster in distinguishing between personal and Web-related mail. (Expect all kinds of inquiries that may

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have nothing to do with your information.) The agency coordinator or a designee should check and answer or forward items received here regularly, to insure they are responded to on a timely basis. (See, "Agency Coordination Role.") Agencies with Web pages housed on DIS's Web server and who do not have their own network and/or Internet access should utilize the Kentucky Webmaster mailbox (kywebmaster@mail.state.ky.us) for this purpose.

- As noted, a "Link to (the agency's) home page" icon is also required at the bottom of all agency Web pages, with the exception of that agency's home page itself. Agencies may use the icon provided by DIS at the bottom of the standard Web page template for this purpose, or they may create their own icon. Agency-created icons should be a graphic (GIF or JPEG) which is appropriate to the agency (i.e., a road sign icon might be appropriate to the Transportation Cabinet, but not for the Revenue Cabinet) and should be consistent throughout the agency's Web site. Remember to include an alias tag with a standard text designation for non-graphical browsers.
- Colors and backgrounds of required agency Web page elements may be changed to better enhance an agency's Web page design, as long as all required elements appear on all pages. For example, a different colored text rather than the blue in the standard navigation bar could be used, or the bar's background (now set to transparent) could be varied, as long as the text is clearly legible and the bar itself is included on each Web page.

General Guidelines

- For ease in Web site management and searching, agencies should put "KY:" followed by agency name and a descriptive title in the title area of each Web page. Most search engines will then be able to locate your site. Agencies may also wish to submit their sites' titles to major search engine vendors such as Yahoo, Lycos, etc., to make doubly certain that these engines can locate them.
- To assist Web visitors in site navigation, agencies are encouraged to provide return icons and links to the next highest level of their site from all Web pages.
- Never 'strand' users on a page. Give them options as to where to go next.
- Please link to additional appropriate sites to facilitate information access, but remember to verify that these links are current on a periodic basis.
- Be judicious in the use of graphics on home pages. Remember that some customers and citizens have dial-up connections.
- When using backgrounds, particularly complex ones, make sure they do not obscure objects/ text placed over them.
- Look at published material through various monitors and browsers, if possible. Remember

that the size and resolution of the user's monitor and the sophistication of his/her browser can alter the appearance of your publication. The layout and even the colors can vary. Most monitors are 640 x 480. To keep users from having to scroll horizontally, your page should be less than 640 pixels wide.

- In general, it is inadvisable to use proprietary features which would not be accessible through well-known browsers, i.e., Netscape Navigator and Microsoft Explorer. If your publication is optimized for a specific browser, put, "This page best viewed through (name of specific browser)" and provide a link to where that browser can be downloaded. (Do use a browser that is compatible with the latest version of HTML. Better yet, use a browser that handles features from the proposed version of HTML.)

Note: If you are contracting out for Web publishing services, make sure you own the deliverables and are entitled to reproduce them (i.e., logos) without incurring additional fees. Also, if you assume the responsibility for providing input data to a contractor in a specified format, you should thoroughly understand the level of effort on your part which will be required to do this, including any file conversion activities necessary.

Suggested Tools

DIS is in the process of evaluating Web development tools. Additional recommendations will be made as the evaluations progress. In the interim, DIS staff may be contacted for additional information. Before purchasing any Web development tools (hardware or software), agencies are advised to check with DIS and the vendor to insure full functionality to meet agency needs and compatibility with the Commonwealth's Web environment. The following generic types of tools should prove of assistance to beginning Web publishers:

- A graphics editor and scanner hardware/software to handle graphics (Scanning software to scan images in, then graphics software to manipulate the scanned image and produce GIF and/or JPEG images)
- A 17" (minimum) high-resolution monitor and a graphics accelerator card with extra video RAM (You may wish to invest in this, if you plan to create a lot of graphics)
- An imagemap editor for creating imagemaps
- Software to create animated GIFs and marquees (If you wish to include these in your publications)
- A PDF conversion tool for large documents and manuals (especially useful for printing)
- An HTML editor (Shareware/freeware HTML editor software is available on the net, but in our experience it frequently has bugs. DIS recommends that this software be purchased.)
- File Transfer Protocol (FTP) software to move files to the Web server (if on a remote host)

- Telnet to log into your Web server (or other remote hosts)
- Knowledge of basic Unix commands (if you are using a Unix-based Web server)

Note: Code generators such as those within FrontPage or Netscape's Composer are good to use to get started, but pages produced with them are hard to change and maintain. It is often easier to recreate a page with this type of software than to modify it.

Tips and Techniques

The Internet is a flexible environment with more than one way to do anything. The following are hints and tips based on the experiences of DIS Web publishers. They are included here as suggestions which may help new Web publishers. Much has been published on this subject. For additional information resources, see the end of this section.

- Decide who your audience is, who you are trying to reach, what information you are trying to give them and then make it as easy as possible (in as few layers as possible) for them to get to the information. Do a site diagram (flowchart) when designing to assist in this. Find pages you like on the Web for ideas.
- The net itself is your best source for development ideas. There are interactive training, HTML and style manuals, libraries of icons, backgrounds, lines, patterns, HTML editors and freeware/shareware to download. Remember that the appearance of your page should be appropriate to its content. (A partial list of some of the more popular style guides, each of which has links to additional information, including some of the items listed above, appears at the end of this document.) It is also wise to invest in a good HTML manual for reference.
- The home page (defined as the front door to your application) should be visually interesting. Limit the size of this front door to two screens of information, one screen would be preferable. The front door then leads to the content of your application. Graphs, pie charts, etc. can be colored and logos added with little effort. You can embed sound and video in your pages, as well.
- Include a META tag at the beginning of your home page to provide search engines with a description and key words to index your page.
- As mentioned, you should limit the size of graphics to minimize the loading time for the browser. For example:
 - Break large documents up into sections. Use links to go from section to section. (Large documents take a long time to load.)

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- Limit the width of graphics to 500-600 pixels wide (assuming 95 pixels/inch) or convert to interlaced GIF so that the person browsing can stop loading the graphic at any point. (The person browsing can configure the browser to not load graphics at all, as well.) Use the ALT attribute of the IMG tag to create text for non-graphical browsers.
 - If there are lots of graphics on a page, be sure to limit their size, if there is just one graphic, obviously you can have a more generous size.
 - Don't dither a GIF image. This will enlarge the image.
 - Also, you can include a 'thumbnail' (a smaller version of a larger graphic) and provide a link to the larger version. (This can be done with HTML tags.)
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- When picking colors or graphics for tiling for backgrounds, make sure that you can read the type against the background. When picking colors for type, remember it is difficult to read brightly-colored type. Muted colors are more legible, i.e., a brick red is more legible than a fire-engine red. Color swatches and recommended color combinations are available on the net.
 - Use scanning software to scan in graphics in 24 bit color (even black and white ones) to an intermediate format (either BMP or TIFF format, for instance) then manipulate the image with the graphics editor (crop, lighten, contrast, focus, resize) until you are satisfied, then convert it to a final form, either 8 bit color GIF, or JPEG.
 - Scanning in text generally makes it smaller and uneven and harder to read. Text needs to be at least 6-8 point type to be legible on the screen. Scanning makes things darker, so you will almost always be lightening scanned images.
 - You will need ASCII text as a source file format for importing into HTML if you do not have an HTML generator for your word processor.
 - When adding large documents or manuals, or where the appearance of the document is important or must be exact (as in tax forms), consider converting your information to PDF format which can be viewed with a PDF reader. PostScript format is the best source for PDF documents. You can scan to PDF format as well. PDF readers will be incorporated in future versions of browsers.
 - Use the View Source on your browser to see HTML source documents. You can then download these source documents. (Copyright laws must be respected.)
 - Click on any graphic on the net and use Save Image As to download it as well. (Again, observe any copyright restrictions.)
 - Use Open File on your browser to view your HTML document before loading it to the web server.

- HTML ignores white space. Tables (especially invisible ones) are a useful tool for aligning text and images. Forms and other tables can also be embedded within tables. Tabs do not work correctly in some HTML browsers.
- If you are using frames (a way to display multiple HTML documents on one screen), remember to create a non-frames application as well, for browsers not capable of using frames. Consider using tables instead of frames and specify table and column widths.
- You must enter the exact name of the HTML document for the URL to find it (for example, ".htm" or ".html") The URL is caps-sensitive as well so we suggest document names in all lower case letters.
- If you remove Web pages from a Web site, they should be moved or archived to a non-public directory to prevent being found by search engines. Keep documents and graphics together in one subdirectory to make path statements unnecessary.
- Good Luck with your Web publishing!

Additional Information Resources

The following is a sample of additional publications related to this topic available on the Web:

- Patrick J. Lynch's *Web Style Manual*
<http://info.med.yale.edu/caim/manual/contents.html>
(This manual also includes references to HTML authoring resources, WWW authoring resources and indexes, etc.)
- Tim Berner-Lee's *Style Guide for Online Hypertext*
<http://www.w3.org/pub/WWW/Provider/Style/Overview.html>
(This style guide also includes a variety of references to additional HTML and other resources.)
- National Center for Supercomputing Applications' *A Beginner's Guide to HTML*
<http://www.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html>
(This instructional guide offers a good introduction to HTML and contains links to additional information resources.)