REPORT OF THE
DIVISION OF LEGISLATIVE AUTOMATED SYSTEMS
AND THE DEPARTMENT OF INFORMATION
TECHNOLOGY ON

DEVELOPMENT OF A PROTOTYPE TO PROVIDE LEGISLATIVE INFORMATION VIA THE INTERNET

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

HOUSE DOCUMENT NO. 25

COMMONWEALTH OF VIRGINIA
RICHMOND
1996

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December 15, 1996

The Honorable George Allen
Governor of Virginia
Members of the General Assembly
Richmond, Virginia

Dear Governor Allen and Ladies and Gentlemen:

House Joint Resolution No. 482 (1995) requested *the Department of Information Technology and the Division of Legislative Automated Systems, within their existing resources, to develop a prototype for providing access to the Legislative Information System through the Internet.* We are pleased to transmit this report of the progress made in developing the prototype and related findings. The prototype system, as specified in the above legislation, is now in place and is accessible via the Commonwealth NetServer, using the Uniform Resource Locator : **http://www.state.va.us/dlas/welcome.htm**. We are pleased with the results of this effort and would suggest the best way to evaluate this new information distribution mechanism is through individual use. Additionally, the issues related to the prototype are attached.

Respectfully submitted,

Charles C. Livingston, Director
Department of Information Technology (DIT)

William E. Wilson, Director
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Attachments

Findings:

Several issues surfaced in the course of the prototype development. The list below relates to access to Legislative Information over the Internet. Perhaps as important, the items are relevant to any effort at providing current and accurate public information over the Internet. Several issues require short-term solutions, but appear suited to longer range technical or policy action. In those instances, the proposed actions are specifically addressed.

Issues:

- **"Current" technology selection and the World Wide Web (WWW).** The first requirement of the prototype was choosing an appropriate client/server software environment. At the time and even more so today, the graphical "browser" available through a WWW-based environment is very attractive. Not only are non-traditional data types useable, but the presentation of stricken and italicized language for deleted and new bill language is very appealing. The downside of this choice is the degree to which a graphical interface requires faster network access and more expensive computer equipment. To the degree possible, the WWW prototype makes allowances for low-speed connections with text selections available in lieu of graphics. The second requirement was selection of a standard browser. Our choice was a particular commercial product called Netscape®. Although still a good choice, tests with other browsers indicated a lack of overall conformity to standards among these products.

- **Structured data and update methodologies are fundamental.** The greatest resources of the prototype were an existing structured data model and well-ordered design of the real-time legislative information system. Also, the availability of Standard Generalized Markup Language (SGML) text was key to construction and maintenance of WWW files. The greatest barrier to effective electronic publishing is failure to include an update and review model. The design of the prototype relies on the use of existing programs and processes to keep information accurate and current. However, the possibility of dead-end links and out-of-date information requires constant review.

- **Limitations on network bandwidth to our pages.** The current configuration relies on software that permits a UNIX host, a DIT-owned server, to "see" a DLAS file server and use disk on that server. As configured, a 56kb link between the servers transports all traffic between a typical user and requested file. The result is a "two-step" process. Two remedies would seem to be in order. First, support a Web server at DLAS, providing a single point of user contact without the two-hop of the current setup. Second, increase the line speed between our router and the Internet connection. At this point, any solution awaits actual performance measure during a legislative session.

- **Real-time interaction with users.** Use of the system for true bill tracking requires greater real-time function. Additionally, on-line billing for services falls into this category. Several legislative agency functions, such as publication distribution, were also identified as benefiting from structured data input by users.

- **Composed document facility.** A limitation of the current prototype relates to presentation and use of bill text and other complex documents. Bill text displays do not show page and line numbers like a traditional printed copy. While users need the WWW displays, an additional capability to download, view and print a "pure" postscript (PDF) file would be useful.

- **Issues for the 1996 Session and beyond.** Current plans include "loading" the 1996 information and leaving the 1995 data in place. Although workable, will it be useful to keep extending on this pattern? Special sessions? Are search techniques and approaches different when archival information is targeted?

- **Handling of full text.** Search, retrieval and viewing of both the Code of Virginia and the Virginia Administrative Code requires selection and installation of appropriate text management software. Issues of maintenance, hardware platform requirements and connections to other information sets are unresolved. (*See: statutory issues below*)

- **Information included.** Voting information is the most frequently requested topic area. The model for connecting a vote to the related history item of the bill is planned for future iterations of the prototype. The Code of Virginia is also frequently requested. A *statutory issue is § 30-34.10:2 restricting display of the Code of Virginia from private sector users of any Legislative Information System. To address this issue and provide for Code display on the Internet a bill draft was presented at the Virginia Code Commission meeting on 11/15/95. Some details of drafting need to be worked through and a bill will hopefully be introduced and passed during the 1996 Session that remedies this situation.*)

Conclusions:

It appears from the experience of the prototype that much useful information can be published via the Internet. The cost associated with providing this facility is not insignificant. In the case of the prototype much of this investment could be absorbed through existing technology resources. As technology offers more capabilities for WWW and other Internet services, there is even potential for some cost savings. For example, in lieu of paper publishing, many types of information can be constructively "published" on a WWW site. Given the increasing availability of network access and the ubiquitous nature of "net" resources, continued support and enhancement of the General Assembly's Web facilities appears worth the investment.

1995 SESSION

ENROLLED

HOUSE JOINT RESOLUTION NO. 482

Requesting the Department of Information Technology and the Division of Legislative Automated Systems, within their existing resources, to develop a prototype for providing access to the Legislative Information System through the Internet.

Agreed to by the House of Delegates, February 4, 1995
Agreed to by the Senate, February 21, 1995

WHEREAS, the Legislative Information System is a single source for timely and complete materials about the ongoing work of the General Assembly and its standing committees during each legislative session; and

WHEREAS, such information includes (i) the complete text of bills and resolutions as introduced, engrossed, and enrolled; (ii) the actions of the General Assembly and its standing committees on legislative initiatives during the course of the session; and (iii) information of general interest about the General Assembly and its membership and organization; and

WHEREAS, in addition to information related to the General Assembly and its ongoing work during each legislative session, the Virginia Constitution and the Code of Virginia, including annotations and historical citations, and current agency regulations as published in the Virginia Register are also searchable data bases in the Legislative Information System; and

WHEREAS, the Internet is a high-speed, international information super highway, to which millions of people are connected; and

WHEREAS, the information available through the Legislative Information System would be of great benefit and interest to the users of the Internet; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Department of Information Technology and the Division of Legislative Automated Systems, within their existing resources, be requested to develop a prototype for providing access to the Legislative Information System through the Internet.

The Division of Legislative Automated Systems and the Council on Information Management shall provide strategic support to the Department. All other agencies and entities of the Commonwealth shall provide assistance to the Department, upon request.

The Department of Information Technology and the Division of Legislative Automated Systems shall report their progress in developing the prototype system to the Governor and the 1996 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.