Q.Please state your name and business address for the record.

A.My name is Edward E. Howell.  My business address is 472 W. Washington Street, Boise, Idaho.

Q.By whom are you employed and in what capacity?

A.I am employed by the Idaho Public Utilities Commission as a System Analyst.

Q.Please describe your educational background and work experience.

A.I received an AA degree from Idaho State University in 1986 in Information Technology.  I was employed by the State of Idaho in 1987 as a Programmer on a large mainframe computer and several mini-computers.  Since my employment with the State, I have received training on a variety of computing platforms that are used within state government agencies or commissions.  I began work for the Idaho Public Utilities Commission (IPUC or Commission) in September of 1988 and for five years provided sole support for all the IPUC information systems.  In 1992 the IPUC began to migrate from the proprietary mini-computer the Commission was then utilizing to a more open environment based on a PC network.  The IPUC is currently in the third year of a planned three-year migration to the Local Area

Network (LAN).  I have received extensive training in Novell-based networks.

When I became aware in late 1994 that the Department of Administration was going to make the Internet available to state agencies, I acquired a private Internet account and took advantage of a user training class being provided by Boise State University.  In early 1995 I again took advantage of Boise State University classes on how to set up a World Wide Web Home Page and how to set up a World Wide Web Server.  I have further expanded my knowledge by reading extensively on how to support the environment and how the Internet is being utilized to provide information and to conduct business.

Q.What is the purpose of your testimony?

A.To outline the steps the IPUC has recently undertaken to enhance access to its public records via the Internet.

Q.Do you normally participate in cases brought before the IPUC?

A.No.  But in this case I was asked by the

Telecommunications Staff to describe the electronic access to this Commission as an example of how the Internet is already being used to improve communication with the public.

Q.Are you familiar with the local government

component of the revenue sharing proposal submitted as ACCESS ‘96 in this case?

A.By way of background, I have briefly reviewed the original submission by project coalition members, as well as their responses to questions submitted by Staff and intervenors.  However, I do not intend to comment directly on their proposal.

Q.What sort of system is now in place at the IPUC?

A.The Commission performs all computing assignments utilizing a Novell Network.  We currently have 53 users connected directly to the network and three remote users with dial-in access to the network.  In February of 1995 the Department of Administration extended the state-installed fiber optic backbone (known as CMFONI) to agencies and commissions that are located close to but off of the Capitol Mall.  With this installation the IPUC was able to take advantage of the wide area network (WAN) resources made available and supported by the Department of Administration.  These resources included E-mail to state agencies and commissions connected to the WAN, and E-mail to anyone connected to the Internet.  The Commission acquired a Novell-supplied software package called Global Message

Handling Service (GMHS) for approximately $2,000 that handles state WAN and Internet E-mail systems.  The     E-mail software application employed by the Commission, called Pegasus Mail©, was acquired from the Internet and is free, although the support manual cost $150.  With the additional purchase of individual PC-based communications (TCP/IP) software called Novell Lan WorkPlace, the IPUC users are able to take full advantage of the resources on the Internet: WWW (World Wide Web), FTP (File Transfer Protocol), Gopher (text-based search and retrieval) and a multitude of other Internet tools and utilities.  This communications software, when purchased in volume, cost approximately $80 per user, and the WWW browser software can be obtained from the Internet for free or at very low cost per user ($31).

In July of 1995 the Department of Administration was able to make an Internet public segment available to state agencies and commissions.  This allowed the IPUC to provide information immediately to the public via the Internet WWW (World Wide Web) as shown in Exhibit No. 106.  The public may attach to the Commission's Web Server and read or download IPUC Orders going back to 1981, Notices, future Decision Meeting Agendas, Decision Meeting Agenda and Minutes going back to 1990, Regulated Carrier Orders, Press Releases going

back to 1994, the IPUC Rules, Commissioners’ resumes, the Commission Staff office phone numbers and E-mail addresses.  In the near future we intend to provide Commission brochures, mission statements, utility tariffs, and any other information that the public may desire.  Currently the information provided by the IPUC is for the most part bulk information.  Except for our Administrative rules, we do not provide an index as to what is available.  We are looking into providing some type of search engine or “Gopher” that will allow an Internet user to type a word or character string and then be supplied with documents or information that meet the user's search criteria.

Another way the IPUC has made use of the Internet is in a recently implemented Consumer Assistance System application.  This application allows Consumer Investigators to generate and E-mail complaint information to U S WEST directly from the application.  The advantages to the IPUC and U S WEST include reduced use of paper, faxes, telephone tag and data entry of complaint information or responses at both locations.

To date the comments I have received from utility companies, consultants, professionals and other state commissions about our system have been very favorable.  The IPUC has been approached by several state

public utility commissions (Maryland, Washington,

Colorado, Wisconsin and South Dakota) asking for assistance or advice in implementing or setting up a similar approach to disseminating their information or utilizing E-mail for systems such as the IPUC Consumer Division/U S WEST complaint system.  Locally, Intermountain Gas Company, Idaho Power Company, MCI Telecommunications, Ben Johnson Assoc., and U S WEST have made positive comments regarding the information being provided via the WWW server and E-mail.  I also have a letter from Barbara Wilson of U S WEST to the Governor with copies to the Commissioners that commends the IPUC and recognizes Staff for the previously described IPUC Consumer Division/U S WEST complaint system.

Q.What were the initial steps and what sort of groundwork had to be laid with Commissioners and with Administration?

A.A conclusion and recommendation was made by the Telecom ‘92 Task Force appointed by the Governor that the benefits to be derived by linking all state agencies and commissions would be worth the considerable costs that would be incurred in making those links.  The Governor at that time, Cecil Andrus, supported    Telecomm ‘92's recommendation as did the 1993 Legislature by passing House Concurrent Resolution No. 23, and the

Capitol Mall Fiber Optic Network (CMFONI) project was

undertaken.

Q.What were the technical requirements for this project?

A.I am not familiar with the technical requirements for the CMFONI project, although I do

know that with the explosion of uses of the Internet and the proliferation of Internet Access Providers, the

technical requirements required to put an E-mail and WWW access on the desktop have been substantially reduced.  There are alternatives to fiber optics such as Integrated Services Digital Network (ISDN), Asynchronous Transfer Mode (ATM), Frame Relay, T1 (1.55 million bytes per second capacity) or fractional T1 (something below T1).  While not all of these types of alternatives are available to all of Idaho, dial up over voice grade lines that can support speeds up to 28.8 (thousand bytes per second) are available.

The October 16, 1995 issue of INFO WORLD reports that U S WEST and NYNEX plan to offer managed network and Internet access for small and mid-size companies.  The services include Internet access, E-mail and directory services that allow geographically separated businesses to share resources.  They also offer Interact Market and Commerce service, which will include

WWW design and hosting as well as Access-Control services and Data Encryption Management.  AT&T, MCI and other interexchange carriers offer Internet access packages as well.

Q.What sort of support did you need?

A.I installed and configured the Novell Global Message Handling Service (GMHS) software that made the WAN and Internet E-mail a reality for the Commission.

Instructions were obtained from software manuals that were included with the software and from the support staff at the Department of Administration.

Q.What sort of security concerns did you have and was it difficult to address them in the Internet environment you chose?

A.The Novell network the Commission utilizes provided the necessary security for the original E-mail.  Before the Department of Administration allowed full Internet access for state agencies and commissions, a “firewall” was put in place which allowed state users to get out to the Internet but restricted in-bound Internet access to the state information.  The Department of Administration has since put into place both public and private Internet segments.  The public segment allows State agencies and commissions to provide public information to the public while the private side remains

hidden from view.

Q.How have you addressed problems of comparability and integration when data is supplied in many different formats (e.g. Lotus 1-2-3 vs. Excel, Wordperfect vs. Word, etc)?

A.Currently the information provided via the IPUC Internet WWW Home Page (Exhibit No. 105) consists of WordPerfect version 5.2 and HTML (Hyper Text Markup Language) documents.  The “standard” for the IPUC is WordPerfect and Lotus, and any information that is made available to the public now or in the near future would be in this format.  There is another “standard” that is emerging called SGML (Standard Generalized Markup Language) which I believe will eliminate comparability or compatibility problems.  This “standard” is currently being developed by the Canadian National Energy Board with the support of Canadian energy and gas companies and the Canadian provinces and covers all aspects of communication.  I believe the same type of standard will be demanded by the American business community and Federal and State governments in the near future.

Q.Do you believe an Internet-based system of the type developed at the IPUC is a viable and cost-effective way to enhance public awareness and public

participation in the local government process?

A.In my opinion the Internet-based system the

IPUC has adopted makes the best and most inexpensive use of an existing technology that is becoming more and more accessible to the citizens of Idaho.  The non-proprietary nature of the Internet fosters competition thus lowering cost of access, while the user-friendly tools and applications available to content providers like the IPUC and end users makes both providing and finding the information a simple matter.  For the Internet user it usually is a simple matter of point and click with your mouse.  With Federal (Exhibit Nos. 108 and 109) and now State (Exhibit No. 107) government information available via the Internet, I believe that it would be

counterproductive for the cities and counties of Idaho to adopt a proprietary closed system.   As the use of the Internet increases I believe that additional capabilities will emerge, allowing even the most technologically unsophisticated users to access the information that governments provide and to participate in government via the Internet.

Q.Does this conclude your direct testimony in this proceeding?

A.Yes, it does.