

TELEMASP BULLETIN

TEXAS LAW ENFORCEMENT MANAGEMENT AND ADMINISTRATIVE STATISTICS PROGRAM

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The Internet and Law Enforcement Part I Employing the Net as a Resource

During the last 24 months, information about the Internet has pervaded the popular media. Indeed, the growth in the Internet is phenomenal (see Figures 1, 2, and 3). The amount of information available on the Internet useful to Texas law enforcement agencies has grown to the point that we felt it would be useful to publish a series of two bulletins regarding the "Net." This bulletin provides an overview of the Internet and its generic uses for police agencies. Next month's bulletin will address the content of law enforcement agencies' home pages.

Background

The Internet traces its origins to the Advanced Research Projects Agencies Network (ARPAnet)—for computers in California linked for Department of Defense research. In the 1970s the Department of Defense created two other similar networks in the United States. When all of the DOD networks were linked, the term "Internet" was used to describe the new structure. The Internet has grown to a world-wide telecommunication structure employing as its backbone long distance telephone lines. These lines, now primarily fiber-optic cable, are maintained by the long distance carriers with which we are all familiar. Five companies designated as Internet carriers lease bandwidth from long distance companies for Internet transmissions. National and local firms who provide access to individuals and companies to the Internet, called access providers, each pay a flat annual fee of a minimum of \$20,000 for each point of access to the Internet carriers (Gates, 1995). Government oversight or regulation of the Internet is sparse. The U.S. government regulates assignment of Internet addresses

through a contract firm. The only other regulation of the Internet is through the Telecommunications Act of 1996, containing provisions prohibiting transmission of pornographic material. Headlines are now beginning to appear regarding strain on the long distance carrier networks. Additional government regulation may occur in the near future to prevent "crashing" of standard telephone transmission networks.

Terms and Concepts

The Internet consists of a system of computer protocols which allow otherwise incompatible hardware and software to communicate. Information on the Internet is contained in thousands of independently maintained computer server units wired to the network. Information may take the form of directories, text files, data files, bulletin board systems and newsgroups. The overwhelming majority of information on the Internet over the course of the last two years has been converted to a format referred to as the World-Wide Web (www). Information in Web format employs an access computer language referred to as hypertext markup language (html). The point of access for Web information is a home page or Web page. Web pages allow graphical user interface so that windows commands may be employed to move through the data set. The use of hypertext transfer protocol (http) allows a user to simply click on a highlighted word, phrase, or icon and move to a different address on the Web. There are still innumerable computer files on the Internet not in Web format. Increasingly, however, these are limited to data used by specialists in a particular field. General public use of the Net is almost exclusively through the World-Wide Web.

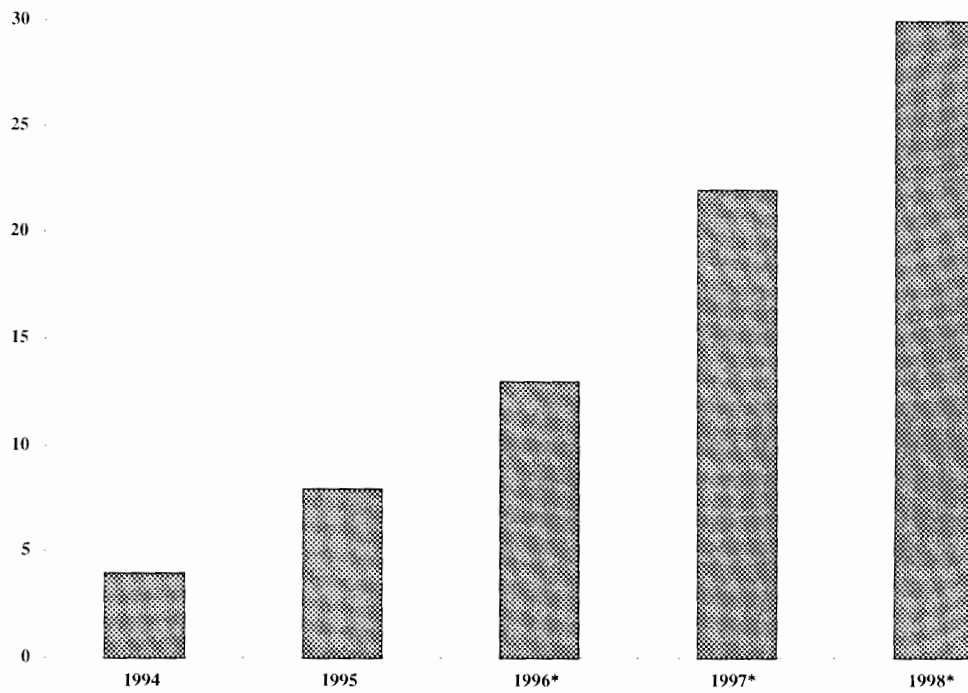


Figure 1. Growth in U.S. Consumers with Internet Access, in Millions

*Projection

Source: Forrester Research Inc. as cited in the *Wall Street Journal*

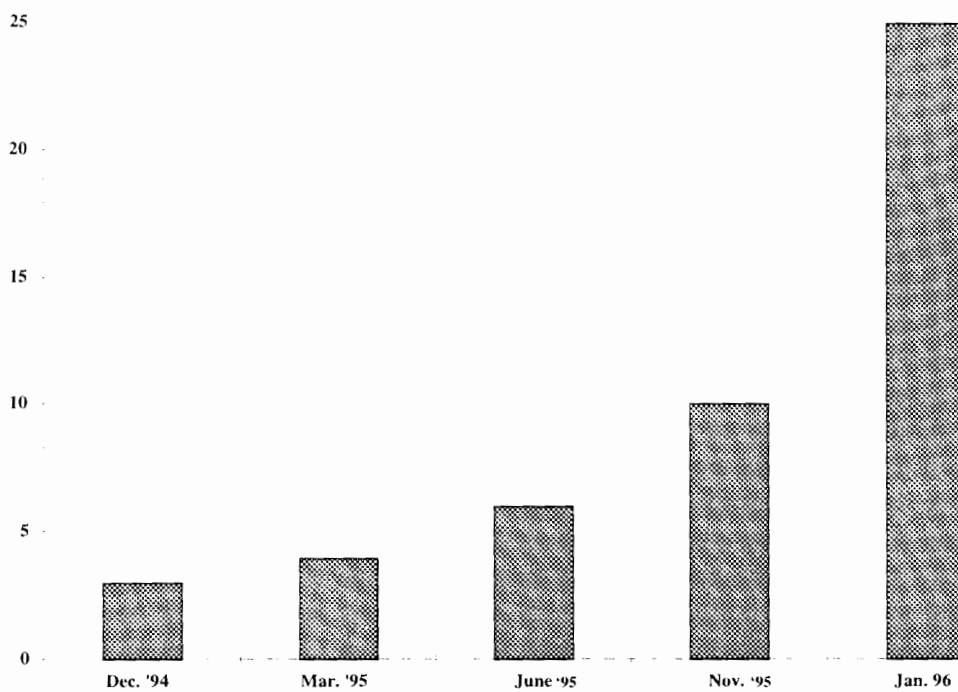


Figure 2. Growth in Pages of Information on the World-Wide Web, in Millions

Source: Lycos Inc. as cited in the *Wall Street Journal*

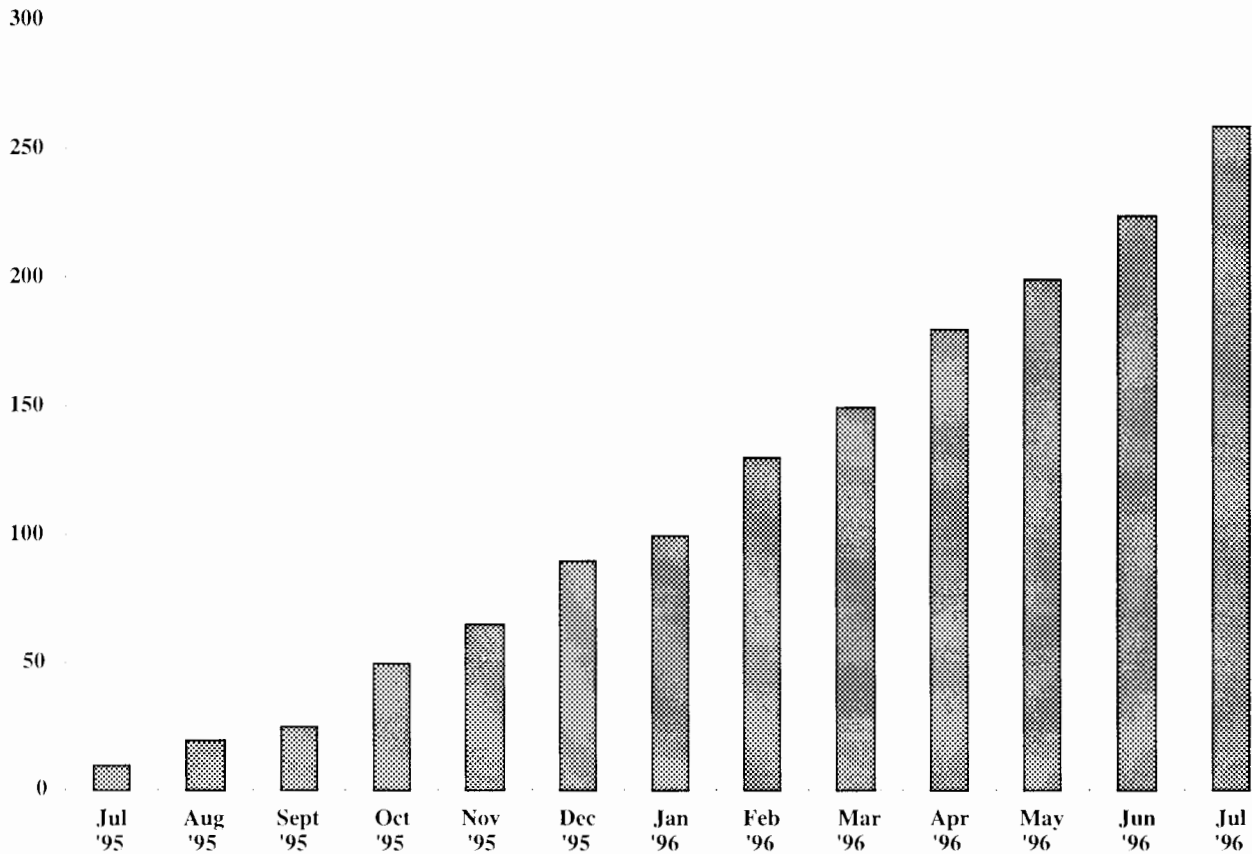


Figure 3. Transactions Conducted on the World-Wide Web (\$ in Millions)

Source: *Wall Street Journal*, Thursday, July 25, 1996

Addresses on the Net

Addresses on the Internet consist of three basic components. The first of these indicates the type of transfer protocol being employed. Because the majority of information on the Internet is now in World-Wide Web format, one most typically sees the first segment of an Internet address as **http**. The **http** designation is then followed by a colon and two forward slashes (://). This is a computer command designator. Since a user will never use a colon and two forward slashes in common text typing, the computer recognizes this sequence as a "command" to do something when it is encountered, in this case to 'go to' another server. The next part of a Web address is typically the three initials "www." However, it should be noted that this is not a necessary part of a Web address, but has become a part of Internet address protocol for Web pages. Some Web addresses skip the **www** designation. The second major component of a Web address

is the designation of the server unit. Because Internet service providers can substitute a proper name for the server designation, one often simply sees an organization name, e.g., **http://www.microsoft.com**. The **microsoft** in this address is actually a computer server designation. The third major component in the address immediately preceding is the **.com**. This refers to a general entity designator, in this case a commercial organization. The abbreviation **.edu** refers to an educational institution, **.org** to a nonprofit organization, etc. One will soon see variance of the 'dot com' designation, since it is becoming overloaded with commercial organizations sharing similar proper name designators. E-mail addresses vary somewhat from this format, with the person or entity designated first, then an at sign (@), followed by a computer server designation, and finally the organizational entity.



"Addresses" on the Internet

- Just as the post office or courier service needs an address to deliver or pick-up a package, sources on the Internet need addresses so users can find and access them.
- These addresses are called Uniform Resource Locators or a URL.
- Each address—or URL—will begin with the type of computer source file being used, for example:
 - A Web site with hypertext links will begin with **http**:
 - A text gopher will begin with **gopher**:
- Following the source designator will be a series of letters and/or numbers with different types of punctuation which network computers read to narrow down and locate the domain and precise computer file being sought.
- The URL will change with each sub-page of a home page.
- Internet "domains" can be interpreted (somewhat) by knowing the "codes" and using some educated guessing. For example, the primary stem of each domain type will tell you something about the computer source:
 - ***.edu** is an educational institution
 - ***.com** is a commercial service provider
 - ***.org** is a non-profit organization
 - ***.mil** is a military computer system
 - ***.gov** is a non-military government system
 - ***.uk** is a system located in the United Kingdom
- An illustration of interpreting an address (Home Page of the *Law Enforcement Management Institute*)
 - **http://www.shsu.edu/~lemit/**
 - It is a hypertext file (**http**);
 - The organization is Sam Houston State University (**shsu**)
 - Located at an educational institution (**edu**)
 - The home page within this domain is the Law Enforcement Management Institute (**~lemit**)
- An E-mail address uses the same principle, but a different format, the recipient's designator first followed by an "at" (@) sign, then the domain,
 - Larry Hoover: **prc_lth@shsu.edu** (Police Research Center, underscore, initials, at SHSU)
 - David Carter: **david.carter@ssc.msu.edu** (name at Social Science College, Michigan State University)

Consumer Access

Access to the Internet for the general public is provided in one of three ways. First, several firms operate on a national level as so-called "online services." These include America OnLine, CompuServe, The AT&T Network, The Microsoft Network, and others. In addition to Internet access these services provide other information directories unique to each. Obviously, fees vary somewhat, but in general, for \$20.00 a month one can gain unlimited Internet use time. The second major point of access is through local Internet access providers. These services provide only access to the

Internet, with no supplemental services. They are generally less expensive than the online services but sometimes require more complex software installation. The third point of access is through public entities. Some universities and libraries provide limited Internet access for the public they serve. Access is generally free or entails only a nominal charge. However, demand for access lines provided by such entities always far exceeds the supply, limiting their availability.

Gateways to the Internet

- Commercial online services (e.g., America Online, Prodigy, CompuServe, Microsoft Network)
—These services have their own bulletin boards, “chat rooms,” interest groups, and assorted news and information services which are available only to subscribers as well as offering a gateway to the Internet.
- Internet Gateway Providers—Subscription services which provide only a gateway to the Internet and E-mail (via SMTP).
- FreeNet—Organizations, typically colleges and universities, which permit people to access the Internet at no charge. Typically a limited number of access lines and difficult to get in.
- An organization’s own server/gateway—universities, large government entities, and large corporations, have sufficient “computing power” that they serve as their own gateway.

Search Engines

As a generic source, the Internet provides sometimes amazingly diverse information. The Internet as a whole is searched employing one of several search engines. Search engine software uses key word techniques. Some also provide lists of sites presorted into topical categories—like traditional library card catalogs.

- Alta Vista <http://www.altavista.digital.com>
- Yahoo <http://www.yahoo.com>
- Web Crawler <http://www.webcrawler.com>
- Magellan <http://www.magellan.com>
- Savvy Search <http://www.cs.colostate.edu/~dreiling/smartform.html>
- CNET Search <http://www.search.com>

Law Enforcement Use: Generic Sources

Law enforcement use of the net falls into three broad categories: employment of generic internet sources, use of criminal justice reference sources, and participation in usegroups or newsgroups. We would be hard pressed, of course, to attempt to list all of the generic Internet information resources which might be useful to a law enforcement agency. A few illustrations will have to suffice. Several Web sites are now available which are online versions of telephone books. They are consolidated listings for the entire nation and are searchable. Their obvious utility is in efforts to locate someone (see Bigbook, <http://www.bigbook.com> and Switchboard, <http://www.switchboard.com/>). A second illustration of the use of generic Internet resources by law enforcement is for merchandise shopping. An increasing number of firms, even very small firms, maintain Web sites with descriptions and prices for their products. Third, like members of any other organization, law enforcement officials frequently travel. Several types of Internet sites are useful for travel planning. All of the major airlines now have sites which list flight schedules and at least two sites provide a consolidated listing (see Travelocity, <http://dps1.travelocity.com/> and Microsoft Expedia, <http://expedia.msn.com/>). Several sites provide maps to specified locations (see Mapquest, <http://www.mapquest.com/> and Geocities, <http://www.geocities.com>). One can enter either a street address or a location name, e.g., Dallas Public Library, and obtain a map with the location clearly marked.

Law Enforcement Use: References

The second, and most important, use of the Internet by law enforcement agencies is as a criminal justice reference source. Illustrations are provided on the following pages of Web addresses useful for these purposes. An excellent starting point for the neophyte are the law enforcement directories. There are several. Directories, like a library card catalog, are presorted categorical lists of resources. By far, the best law enforcement directory in the world is located in the state of Texas. Ira Wilsker, a professor at Lamar University in Beaumont, maintains the “Law Enforcement Sites on the Web” directory.

Law Enforcement Use: News Groups

The directory sites listed also provide usegroup or newsgroup services. Innumerable newsgroups dedicated to law enforcement topics exist. Those available to the general public are often problematic since the information exchanged obviously is open and dialog often is dominated by individuals with axes to grind with law enforcement. Use groups maintained by the directories require passwords for access. Passwords are provided by the directory services only with proof of law enforcement status. Nevertheless, this medium of communication is not considered secure. Obviously, TLETS and other traditional telecommunication systems should be used for transmissions which should be kept confidential. The usegroups, however, provide a medium for information exchange regarding polices, procedures, and practices.

Using the Internet for Law Enforcement

Information Directories

- Excellent sources for conducting research and gaining information on virtually anything about law enforcement and criminal justice on the Internet are:

—Law enforcement Sites on the Web—Ira Wilsker:

<http://www.geocities.com/CapitolHill/1814/ira.htm>
or <http://www.ih2000.net/ira/ira.htm>

—CopNet and Police Resource List:

<http://police.sas.ab.ca/>

—Yahoo - Society and Culture: Crime: Law Enforcement (similar sites exist in Alta Vista and other search engines):

http://www.yahoo.com/society_and_culture/crime/law_enforcement/local

—Police Officer Internet Directory:

<http://www.officer.com/>

Investigations and Intelligence

- There is a wide range of information available on the Internet which can assist investigative and intelligence activities.
- Some law enforcement and intelligence organizations have information placed on the Internet which can be useful to investigators looking at similar issues.
 - While the information is not “classified,” it is frequently information which would not otherwise be readily available or accessible.
- In some cases, investigative or intelligence “target groups” have information which describes that group’s philosophy or plans which, in turn, provides insight into behaviors and motivations.
- In yet other cases information is placed on the Internet for a wide range of reasons (and from a wide range of sources) which can provide insight about issues and problems (e.g., terrorism, organized crime, anarchy, missing and exploited children, etc.)

- Examples:

—U.S. and International Govt. Military and Intelligence Access:

<http://www.sagal.com/ajax/>

—British National Criminal Intelligence Service:

<http://www.open.gov.uk/ncis/ncishome.htm>

—Aryan Nations Home Page:

<http://204.181.176.4/stormfront/an.htm>

—The Big Book of Mischief (anarchy, bomb making, etc.):

<http://www.ripco.net/download/text/e-texts/tbbom/>

Planning and Research

- Planning and research personnel are faced with gathering diverse information to anticipate future problems, resource needs, deployment decisions, and similar factors.
- While not providing all the answers, the Internet has a wide range of resources which can significantly enhance the research effort.
- A wide range of data bases are available including census, drug trends, regional crime data to help in a comprehensive research effort,
- Examples:
 - Drug Statistics Master Page:
http://www.drugs.indiana.edu/drug_stats/home.html
 - United States Census Bureau:
<http://www.census.gov/>
 - United Nations Crime Prevention Institute Gopher:
<gopher://uacsc2.albany.edu/11/newman>
 - Nat'l Criminal Justice Reference Service: <gopher://ncjrs.aspensys.com/> (Gopher Page)
<http://www.ncjrs.org/> (Web Page)
 - CIA Publications:
<http://www.odci.gov/cia/publications/pubs.html>

Management Decision Making

- A wide range of management issues cross the desk of a police administrator—quick access to good information can assist in decision making.
- Legal decisions, management research, and police-specific research are among the types of information which can be found rapidly and at no charge.
- Examples:
 - Criminal Law News:
<http://www.ljx.com/practice/index.html>
 - United States Congress (legislation, Congressional Record, etc.):
<http://hammock.ifas.ufl.edu/txt/fairs/17286>
 - Bureau of National Affairs, Labor Relations Reports:
<http://www.bna.com/hub/bna/labrel/ctwrap.html>
 - U.S. Department of Justice:
<http://www.usdoj.gov>
 - TCLEOSE:
<http://www.texas.gov/agency/407.html>

Other Reference Sources

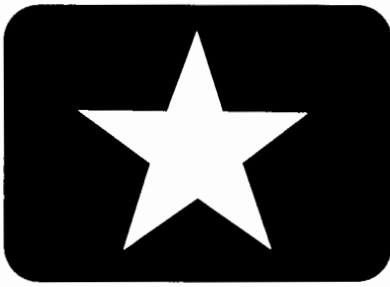
- Other Web sites for professional interests include:
 - Cable News Network (news and weather):
<http://www.cnn.com>
 - U.S. Library of Congress:
<http://www.loc.gov>
 - The Internet Public Library:
<http://ipl.sils.umich.edu>
 - British Home Office Research and Statistics Directorate:
http://www.open.gov.uk/home_off/rsd/home.htm

Community Policing

- Nat'l Center for Community Policing:
<http://www.ssc.msu.edu/~cj/cp/cptoc.html>
- Community Policing Consortium:
<http://www.comunitypolicing.org/>
- COPS Office:
<http://www.usdoj.gov/cops/>

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- Gates III, W. H. (1995) *The Road Ahead*. New York: Penguin Books.
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