Telnet Essay, Research Paper

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PURPOSE OF THIS REPORT

Before gophers, hypertext, and sophisticated web browsers, telnet was

the primary means by which computer users connected their machines with other

computers around the world. Telnet is a plain ASCII terminal emulation

protocol that is still used to access a variety of information sources, most

notably libraries and local BBS’s. This report will trace the history and usage

of this still popular and widely used protocol and explain where and how it

still manages to fit in today.

HISTORY AND FUTURE OF TELNET

“Telnet” is the accepted name of the Internet protocol and the command

name on UNIX systems for a type of terminal emulation program which allows users

to log into remote computer networks, whether the network being targeted for

login is physically in the next room or halfway around the globe. A common

program feature is the ability to emulate several diverse types of terminals–

ANSI, TTY, vt52, and more. In the early days of networking some ten to fifteen

years ago, the “internet” more or less consisted of telnet, FTP (file transfer

protocol), crude email programs, and news reading. Telnet made library catalogs,

online services, bulletin boards, databases and other network services available

to casual computer users, although not with the friendly graphic user interfaces

one sees today.

Each of the early internet functions could be invoked from the UNIX

prompt, however, each of them used a different client program with its own

unique problems. Internet software has since greatly matured, with modern web

browsers (i.e. Netscape and Internet Explorer) easily handling the WWW protocol

(http) along with the protocols for FTP, gopher, news, and email. Only the

telnet protocol to this day requires the use of an external program.

Due to problems with printing and saving and the primitive look and

feel of telnet connections, a movement is underway to transform information

resources from telnet-accessible sites to full fledged web sites. However, it

is estimated that it will still take several years before quality web interfaces

exist for all of the resources now currently available only via telnet.

Therefore, knowing the underlying command structure of terminal emulation

programs like telnet is likely to remain necessary for the networking

professional for some time to come.

ADVANTAGES AND DISADVANTAGES OF TELNET

The chief advantage to the telnet protocol today lies in the fact that

many services and most library catalogs on the Internet remain accessible today

only via the telnet connection. Since telnet is a terminal application, many

see it as a mere holdover from the days of mainframe computers and minicomputers.

With the recent interest in $500 Internet terminals may foretell a resurgence

in this business. Disadvantages include the aforementioned problems that telnet

tends to have printing and saving files, and its primitive look and feel when

compared to more modern web browsers.

OTHER APPROACHES

The functionality of the telnet protocol may be compared with the UNIX

“rlogin” command, an older remote command that still has some utility today.

Rlogin is a protocol invoked by users with accounts on two different UNIX

machines, allowing connections for certain specified users without a password.

This requires setting up a “.rhosts” or “/etc/hosts.equiv” file and may involve

some security risks, so caution is advised.

Using telnet instead of the rlogin command will accomplish the same

results, but the use of the rlogin command will have the effect of saving

keystrokes, particularly if it is used in conjunction with an alias.

CONCLUSION

Some argue that the future of the Internet lies in sophisticated web

browsers like Netscape and Internet Explorer, or tools such as Gopher that

“save” end users from having to deal with the command line prompt and the

peculiar details of commands like Telnet. While that may be the case, the

tendency remains in place for programmers to develop new software by building on

the old. Therefore, knowing the underlying command structure of older protocols

like telnet and rlogin are likely to remain essential skills for the networking

professional in the forseeable future.