Network Working Group
RFC # 608
NIC # 21256

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HOST NAMES ON-LINE

We at the NIC agree with Peter Deutsch's suggestion (in RFC# 606 / NIC# 21246) that the NIC maintain an online ASCII text file of Host names, addresses, and attributes. That suggestion corresponds to one made by Vint Cerf recently, and evidently receives ARPA/IPT support.

Jake Feinler at the NIC designed and maintains a source file, in NLS format, that can be used to generate the ASCII file Peter outlined. A program to generate an up to date version of the ASCII file needs to be written at the NIC, and run periodically (weekly, or as the situation warrants). Such a mechanism would allow us, of course, to maintain one source of data and use it for this and other purposes.

Our present data includes official Host name, Host address, Host status (user, server, TIP) and certain other information like Technical Liaison, Host computer, operating system, etc.

Provisions exist for including attributes of the type Peter suggested (for example FTP byte size, TELNET duplex mode, echoing mode, and nicknames), but these data are currently NOT in our source file.

To get things moving, therefore, we propose to do the following things:

1) We shall write a program to generate the ASCII file in the syntax described in RFC# 606, namely:

   <host-name-file> ::= <entry> / <host-name-file> <entry>

   <entry> ::= <data-part> <end-of-line>

   Note that this produces a blank line after the <data-part>.

   <data-part> ::= <basic-part> / <data-part> <attribute-item>

   <basic-part> ::= <host-name> , <host-address> <end-of-line>

   <attribute-item> ::= <attribute-name> = <attribute-value> <end-of-line>

2) We shall initially include only the following items in each <entry>:

a) <basic-part>

in which <host-address> will be a decimal host address, relative to the Host's own Network, and

in which <host-name> will be the official Host Name, a string obtained through negotiation between the Host and the NIC, governed by these constraints:

up to 48 characters drawn from the alphabet (A-Z), digits (0-9), and the minus sign (-) ... specifically, no blank or space characters allowed;

no distinction between upper and lower case letters;

the first character is a letter;

the last character is NOT a minus sign;

no other restrictions on content or syntax.

Note: The Host Name may be prefixed with an Official Network Name of up to 24 characters enclosed in parentheses (). The Network Name designates the Network in which the Host resides.

(The characters used in the Network Name are drawn from the same character set as those in the Host Name, with the same constraints [except the length] as listed above.)

The ASCII text file will only contain the Official Network name for Hosts NOT on the ARPANET; for ARPANET Hosts there will be no Network Name prefix.

b) <attribute-item>

in which <attribute-name> initially will have the single possible value STATUS, and the corresponding value of <attribute-value> for STATUS will be one of these:

SERVER
USER
TIP
UNKNOWN

c) <end-of-line>

this will be carriage return followed by line feed (octal 015 followed by octal 12).

3) Attributes other than those for which <attribute-name> is STATUS will be added in the above format at a later date (to be announced) as the data becomes available to us.

We agree with Peter that the attribute list should not be construed as replacing option negotiation or any other means by which one Host discovers the properties of another, but merely as an alternative source of information that is simply and easily accessible, in machine-readable form.

Suggestions for attributes that are worthy of inclusion in the ASCII file of Hostnames are welcome. Please send your suggestions and/or data to Jake Feinler
FEINLER @ SRI-ARC, or NIC Ident = JAKE

For completeness, we record here the attribute suggestions given in RFC# 606:

NICKNAMES -- value is a list of acceptable nicknames for the host. Any system that provides name-to-address translation is encouraged (although of course not required) to accept these names as alternatives to the official host name.

FTP-BYTE-SIZES -- value is a list of the byte sizes supported by the FTP server. The first byte size is the one which leads to the least computational overhead (e.g. 36 for PDP-10's, 32 for 360's).

ECHOING -- value is L or R depending on whether the host expects the terminal to echo (Remote) or expects to do its own echoing (Local).

The ASCII file generated by the NIC will reside at Host OFFICE-1 (Host Address = 43 decimal), and will have the pathname

<NETINFO>HOSTS.TXT

Using this pathname with an FTP process will enable anyone, of course, to retrieve the file for use at any Network Host.

The login username for FTP can be GUEST,
password ARPA,
account 1.

The file will be in alphanumeric sequence by Host Name.

The date after which the file will be available at OFFICE-l will be announced via RFC as soon as the file is ready.

We welcome comments on this RFC, on RFC# 606, or on any other aspect of this problem. And we wish to acknowledge the contributions of Vint Cerf, Peter Deutsch, Jake Feinler, and Nancy Neigus in getting the Official Host Name list to happen.