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-1 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.

        [This RFC was put into machine readable form for entry]
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