            More Comments on the Forthcoming Protocol

We have recently discussed NWG/RFC Nos. 36 and 39 with Steve Crocker,
UCLA. Steve has asked that we elaborate on the errors, queries, and
HOST status that were mentioned in NWG/RFC #39.

Please voice your opinions soon in order to affect the forthcoming
protocol specifications.

ERROR MESSAGES

      <ERR> <Code> <Command length> <Command in error>

<Code> is an eight-bit field that specifies the error type. The
assigned codes are shown below. <Command length> is a 16-bit integer
that indicates the length of the <Command in error> in bits. The
<Command in error> is the spurious command.

The ranges of <Code> are shown below in hexidecimal.

      00   Unspecified error types
      10-0F Resource errors
      10-1F Status errors
      20-2F Content errors
      30-3F Unused

Specific values of <Code> are shown below with their meaning.

      <Code> value   Semantics

        00   Unspecified errors.
        01   Request for an invalid resource.
        02   Request for an exhausted resource, try later.
      03-0F   Unused.
        10   Invalid <RSM>, i.e., link connected but unblocked.
        11   Invalid <SPD>.
        12   Invalid <ASG>, i.e., connected but no <RDY>
                          received.

```
     <Code> value    Semantics

        13          Message received on blocked link.
       14-1F        Unused.
        20          Unknown command code.
        21          Message received on unconnected link.
        22          Invalid <RFC>.
        23          Invalid <CLS>.
        24          Invalid <RSM>, i.e., link not connected.
        25          Invalid <FND>.
        26          Invalid <END>.
        27          Invalid <RDY>.
        28          Invalid <ASG>, i.e., not connected.
       29-2F        Unused.
       30-FF        Unused.
```

QUERIES

```
     <QRY> <My Socket>
or   <RPY> <Your Socket> <Text>
```

The <QRY> is the query indicated in NWG/RFC #39 and <RPY> is the reply.
The format of <Text> is shown below; also refer to NWG/RFC #36, p. 3.

```
<Text>::= <16 bit count of relevant connection table entries>
          <relevant connection table entries>

<relevant connection table entries>::=
                                    <relevant connection table entries>
                                    <a relevant connection table entry>
                                    <a relevant connection table entry>

<a relevant connection table entry>::= <local socket> <foreign socket>
                                    <link> <connection state>
                                    <flow state and buffer control>
                                    <reconnection control state>
```

HOST STATUS

     <NOP>

An NCP may be up, down, pending, etc. When an NCP changes its
state to UP it should send a <NOP> to each remote NCP which
indicates the NCP is available. The sending NCP can then
construct a vector of HOST status from the RFNMs it receives. An
NCP receiving a <NOP> can update the availability of the sending
NCP in its HOST status vector.

          [This RFC was put into machine readable form for entry]
           [into the online RFC archives by Richard Ames 6/97]