Network Working Group
Request for Comments: 40

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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.