Host-Host Control Message Formats

NWG/RFC 11 has been modified at UCLA; and will be republished. In the meantime, it seems important to report a new control message format which does not use 7-bit ASCII character mode of transmission.

All Host-Host control messages consist of sequences of 8-bit bytes of the form:

<control byte> <parameter byte 1> ... <parameter byte n>

It is reasonable to transmit more than one control message in any given packet, although this is not mandatory.

Presently, 9 control messages have been defined by UCLA; these are given in the table below along with their parameters. The interpretation is given from the point of view of the transmitting host. ("L" or "Li" mean Link#, and are binary values.)

<table>
<thead>
<tr>
<th>Control byte</th>
<th>Parameter</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;0&gt;</td>
<td>&lt;L&gt;</td>
<td>Please establish primary connection; our output link # is L</td>
</tr>
<tr>
<td>&lt;1&gt;</td>
<td>&lt;L&gt;, &lt;L2&gt;</td>
<td>Please establish auxiliary connection parallel to our primary output link L. The auxiliary output link is L2.</td>
</tr>
<tr>
<td>&lt;2&gt;</td>
<td>&lt;L1&gt; &lt;L2&gt;</td>
<td>DK primary. Your primary output link to us was L; our primary output link to you is L2.</td>
</tr>
<tr>
<td>&lt;3&gt;</td>
<td>&lt;L1&gt; &lt;L2&gt;</td>
<td>OK auxiliary. Your auxiliary output link is Li, our auxiliary output link is L2.</td>
</tr>
<tr>
<td>&lt;4&gt;</td>
<td>&lt;L&gt;</td>
<td>Not OK primary. We cannot establish a primary connection. Your primary output link number was L.</td>
</tr>
<tr>
<td>&lt;5&gt;</td>
<td>&lt;Li&gt; &lt;L2&gt;</td>
<td>Not OK auxiliary. We cannot establish an auxiliary connection. Your primary output link no was L2.</td>
</tr>
</tbody>
</table>
<6> <L> Please stop transmitting over link number L. This is called the CEASE directive.

<7> <L> We are CLOSING our output link number L. You may get this message before the last message arrives over this link since control messages are higher priority than regular data messages.

<8> <L> UNCEASE: that is, you may resume transmitting over output link number L.

Each control message is embedded in the appropriate message structure e.g.:

\[ \begin{array}{c}
\text{mark} & l & <L1> & <L2> \\
\text{checksum} & \text{Padding} \\
\end{array} \]

typical control message (please establish auxiliary link #L2 parallel to our primary link #l)

The header for all HOST-HOST control messages is given below:

\[ \begin{array}{cccccccc}
0 & 3 & 4 & 7 & 8 & 9 & 10 & 14 & \text{LINK#} & 24 & 31 \\
\end{array} \]

<table>
<thead>
<tr>
<th>FLAGS</th>
<th>TYPE</th>
<th>H</th>
<th>SITE</th>
<th>00000001</th>
<th>_______________</th>
<th>/_______________</th>
</tr>
</thead>
</table>

where
- FLAGS - 0000
- TYPE - 0000 (regular message)
- H - host #(0-3) at SITE (usually 0 for single HOST sites)
- SITE - Site #
- LINK# - 00000001 (HOST-HOST control link)