MASSACHUSETTS INSTITUTE OF TECHNOLOGY
INFORMATION PROCESSING CENTER

April 17, 1970

M.I.T. Data Communications Network

The central part of the M.I.T. data communications network is the data switch, a Bell system model 711 step-by-step private branch exchange. It consists mostly of racks of stepping switches, which are basically electrically operated relays to allow a single telephone line to be connected to any one of the other lines. The function of the data switch is to make appropriate interconnections among the lines as requested by persons dialing.

When a person wants to use a dataphone connected to the M.I.T. data switch, the extension number he dials depends both on the system he wishes to access and on the kind of console he is using. The following is a list of the various entries into M.I.T.'s computer systems.

7094 (CTSS)

extensions	type of console
9	teletypes (models 33 and 35)
0	2741* and 1050
1601-1603	ARDS (low-speed input, high-speed output)
1371-1378	teletypes (model 37)

Four TWX' numbers can connect a TWX user to CTSS: 710-320-0800, 710-320-0801, 710-320-0802 and 710-320-0803.

360/67 (CP/CMS)

extensions	type of console
5	2741** and 1050***
1422, 1471	ARDS (low-speed input and output)****
	teletypes (models 33 and 35)****
	Users on teletypes may be bumped if an ARDS user wants the line.
1228, 1339	2000 baud bi-sync lines for 1130's

.GE 645 (Multics)

extensions	type of console
7	teletypes (model 37)
8	2741* and 1050

*	auto EOT inhibit switch ON
**	auto EOT inhibit switch OFF
***	must use "alternate code 5" for a carriage return
****	must type a "control S" after each carriage return

<u>360/65-40</u> (batch processing)

<u>extensions</u>	<u>type of console</u>
1331, 1332, 1337	2000 baud bi-sync lines for RJE (1130 or 2780)

To enter the data switch from outside M.I.T., one should dial (area code 617) 864-6900 and ask the operator to connect the call with extension 818X, where X is one of the numbers above.

<u>Special Requirements for M.I.T. Consoles</u>

A. 2741's

    1. Dial-up feature
    2. Interrupt feature
    3. Automatic answerback - RPQ E46148
       (This RPQ is not utilized on the 360/67.)
    4. Transmit interrupt - RPQ E40681
    5. Inhibit Auto EOT - RPQ F20742
    6. Red ribbon control - RPQ 868019
    7. Print inhibit control - RPQ E46151

B. 1050's

    1. Receive interrupt control - RPQ E27428
    2. Transmit interrupt control - RPQ E26903

C. Teletypes (models 33 and 35)

For entry onto CTSS from the TWX network (as TWX'), no special modifications are necessary. An inverted TWX teletype may be used.

For entry onto CTSS using the standard M.I.T. teletype lines (864-6900, Ext. 8189), the control drum for answerback should be modified as follows:

    1. If the teletype has a new line character (combination line feed and carriage return), "↑RMIT Cxxx Cxxx↑T" where xxx is any three characters.

    2. If the teletype does not have a new line character, "↑RMIT Dxxx Dxxx↑T".

For the 360/67 a standard teletype is used in upright mode.

D. Teletypes (model 37)

    1. Redefinition of "new line" to mean "carrier return and line feed".

    2. Horizontal tabulate (used to speed up printing).

    3. 84-character platen.

62 exchange   (Lincoln Lab Data PBX

1 blocked
2 answering tape
3 ?
4 Some dataset
5 open ──────────────→ next digit[1] open ──→ 3rd digit[1] busy
6 blocked
7 ''
8 ''
9 ''
0 open ──→ not terminated at 5 level.