

INTERDEPARTMENTAL

MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE, MASS. 02139

*from the office of*

January 15, 1970

MEMORANDUM

TO: Multics Administrative Distribution  
FROM: Jerome H. Saltzer and Charles Garman  
SUBJECT: Multics Service Machine

The enclosed statistics are now available from the system; it is planned to summarize them on a twice-monthly basis for Telecommunications planning purposes.

JHS/bm  
Enclosure

Number of Calls Received by Multics Service Machine

Dataswitch

Level 7: (Model 37 Teletypes)

| Trunk  | 11/17-12/10 | 12/10-12/15 | 12/15-12/29 | 12/29-1/12 |
|--------|-------------|-------------|-------------|------------|
| 66     | 2           | 0           | 2           | 0          |
| 67     | 6           | 3           | 2           | 2          |
| 68     | *           | *           | *           | *          |
| 69     | 1           | 1           | 0           | 1          |
| 70     | 34          | 11          | 0           | 0          |
| 71     | 56          | 9           | 7           | 7          |
| 72     | 107         | 25          | 28          | 48         |
| 73     | 170         | 46          | 69          | 102        |
| 74     | 122         | 48          | 61          | 82         |
| 75     | 129         | 29          | 54          | 68         |
| 76     | 75          | 38          | 44          | 77         |
| 77     | 133         | 49          | 62          | 95         |
| 78     | 77          | 8           | 20          | 7          |
| 79     | 47          | 15          | 17          | 26         |
| TOTALS | 959         | 282         | 366         | 515        |

Dataswitch

Level 8: (IBM 1050/2741)

| Trunk | 11/17-12/10 | 12/10-12/15 | 12/15-12/29 | 12/29-1/12 |
|-------|-------------|-------------|-------------|------------|
| 101   | 62          | 6           | 10          | 0          |
| 102   | 100         | 11          | 17          | 4          |
| 103   | 77          | 10          | 3           | 0          |
| 104   | 64          | 11          | 9           | 0          |
| 105   | 49          | 6           | 4           | 0          |
| 106   | 111         | 19          | 11          | 18         |
| 107   | 141         | 1           | 5           | 15         |
| 108   | 181         | 17          | 21          | 37         |
| 109   | 74          | 32          | 72          | 85         |
| 110   | 179         | 67          | 98          | 149        |
| 111   | 10          | 43          | 35          | 69         |
| 112   | 10          | 18          | 24          | 19         |
| 113   | 30          | 17          | 12          | 1          |
| 114   | 73          | 11          | 16          | 40         |
| 115   | 132         | 31          | 59          | 109        |
| 116   | 173         | 64          | 108         | 150        |
| 117   | 111         | 104         | 105         | 107        |
| 118   | 51          | 65          | 65          | 84         |
| 119   | 156         | 42          | 38          | 43         |
| 120   | 119         | 65          | 38          | 42         |
| 121   | 181         | 41          | 58          | 100        |
| 122   | 419         | 148         | 121         | 276        |

\*Channel not currently in use.

Number of Calls Received by Multics Service Machine

Dataswitch

Level 8: (continued)

| Trunk  | 11/17-12/10 | 12/10-12/15 | 12/15-12/29 | 12/29-1/12 |
|--------|-------------|-------------|-------------|------------|
| 123    | 70          | 1           | 4           | 20         |
| 124    | 101         | 6           | 16          | 18         |
| 125    | 151         | 25          | 26          | 50         |
| 126    | 213         | 61          | 64          | 96         |
| 127    | 270         | 76          | 51          | 106        |
| 128    | 1           | 0           | 0           | 0          |
| 129    | 95          | 27          | 54          | 33         |
| 130    | 107         | 6           | 26          | 50         |
| 131    | 182         | 21          | 36          | 70         |
| 132    | 60          | 68          | 42          | 93         |
| TOTALS | 3753        | 1120        | 1248        | 1884       |

General Electric

PBX (Model 37 Teletypes)

| Ext.   | 11/17-12/10 | 12/10-12/15 | 12/15-12/29 | 12/29-1/12 |
|--------|-------------|-------------|-------------|------------|
| 271    | 132         | 62          | 104         | 143        |
| 272    | 47          | 24          | 39          | 96         |
| 273    | 17          | 5           | 15          | 62         |
| 274    | 4           | 3           | 5           | 37         |
| 275    | 3           | 1           | 1           | 18         |
| 276    | 3           | 3           | 0           | 10         |
| 277    | 4           | 0           | 0           | 7          |
| 278    | 4           | 1           | 0           | 2          |
| TOTALS | 214         | 99          | 164         | 375        |

Other Lines:

| Ext. | 11/17-12/10 | 12/10-12/15 | 12/15-12/29 | 12/29-1/12 |
|------|-------------|-------------|-------------|------------|
| 1638 | 4           | 2           | 5           | 0          |
| 1639 | *           | *           | *           | *          |

\* Line in use whenever system is running; dialups are not counted.

INTERDEPARTMENTAL

MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE, MASS. 02139

*from the office of*

March 17, 1970

MEMORANDUM

TO: Multics Administrative Distribution

FROM: J. H. Saltzer and C. Garman

SUBJECT: Multics Service Machine Dial-up Statistics

Enclosed are dial-up statistics for Multics, taken once every four weeks since November 17, 1969. They show that the present load comes close to saturating the available trunks at peak periods, except for telephone number "7", used for Model 37 Teletypes, which has about four more trunks than needed. They also show that dataswitch trunk number 128 is very badly located in the grading pattern, being accessible only to user calling from the Lincoln Laboratories, a low frequency source of calls.

JHS/bm

NUMBER OF CALLS RECEIVED BY MULTICS SERVICE MACHINE

Dataswitch Level 7: (Model 37 Teletypes)

| Trunk       | 11/17-12/15 |  | 12/15-1/12 |  | 1/12-2/9 |  | 2/9-3/9 |  |
|-------------|-------------|--|------------|--|----------|--|---------|--|
|             |             |  |            |  |          |  |         |  |
| 66          | 2           |  | 2          |  | 0        |  | 1       |  |
| 67          | 9           |  | 4          |  | 4        |  | 3       |  |
| 68          | *           |  | *          |  | *        |  | *       |  |
| 69          | 2           |  | 1          |  | 0        |  | 0       |  |
| 70          | 45          |  | 0          |  | 0        |  | 0       |  |
| 61          | 65          |  | 14         |  | 40       |  | 15      |  |
| 72          | 132         |  | 76         |  | 118      |  | 76      |  |
| 73          | 216         |  | 171        |  | 225      |  | 207     |  |
| 74          | 170         |  | 143        |  | 171      |  | 128     |  |
| 75          | 158         |  | 122        |  | 140      |  | 70      |  |
| 76          | 113         |  | 121        |  | 152      |  | 107     |  |
| 77          | 182         |  | 157        |  | 197      |  | 136     |  |
| 78          | 85          |  | 27         |  | 39       |  | 41      |  |
| 79          | 62          |  | 43         |  | 135      |  | 153     |  |
| TOTALS      | 1241        |  | 881        |  | 1221     |  | 937     |  |
| No. of Days | 28          |  | 28         |  | 28       |  | 28      |  |

Dataswitch Level 8: (IBM 1050/2741)

| Trunk  | 11/17- |      | 12/15- |      | 1/12- |     | 2/9- |  |
|--------|--------|------|--------|------|-------|-----|------|--|
|        | 12/15  | 1/12 | 2/9    | 3/9  | 4/9   | 5/9 | 6/9  |  |
| 101    | 68     | 10   | 5      | 4    |       |     |      |  |
| 102    | 111    | 21   | 48     | 64   |       |     |      |  |
| 103    | 87     | 3    | 23     | 22   |       |     |      |  |
| 104    | 75     | 9    | 16     | 19   |       |     |      |  |
| 105    | 55     | 4    | 17     | 29   |       |     |      |  |
| 106    | 130    | 29   | 83     | 95   |       |     |      |  |
| 107    | 142    | 20   | 31     | 91   |       |     |      |  |
| 108    | 198    | 58   | 141    | 88   |       |     |      |  |
| 109    | 106    | 157  | 192    | 199  |       |     |      |  |
| 110    | 246    | 247  | 302    | 254  |       |     |      |  |
| 111    | 53     | 104  | 106    | 142  |       |     |      |  |
| 112    | 28     | 43   | 4      | 41   |       |     |      |  |
| 113    | 47     | 13   | 5      | 26   |       |     |      |  |
| 114    | 84     | 56   | 87     | 80   |       |     |      |  |
| 115    | 163    | 168  | 192    | 177  |       |     |      |  |
| 116    | 237    | 258  | 290    | 212  |       |     |      |  |
| 117    | 215    | 212  | 209    | 250  |       |     |      |  |
| 118    | 116    | 149  | 165    | 199  |       |     |      |  |
| 119    | 198    | 81   | 122    | 155  |       |     |      |  |
| 120    | 184    | 80   | 123    | 142  |       |     |      |  |
| 121    | 222    | 158  | 193    | 211  |       |     |      |  |
| 122    | 567    | 397  | 431    | 640  |       |     |      |  |
| 123    | 71     | 24   | 55     | 51   |       |     |      |  |
| 124    | 107    | 34   | 33     | 49   |       |     |      |  |
| 125    | 176    | 76   | 135    | 153  |       |     |      |  |
| 126    | 274    | 160  | 216    | 305  |       |     |      |  |
| 127    | 346    | 157  | 290    | 354  |       |     |      |  |
| 128    | 1      | 0    | 3      | 1    |       |     |      |  |
| 129    | 122    | 87   | 144    | 249  |       |     |      |  |
| 130    | 113    | 76   | 104    | 103  |       |     |      |  |
| 131    | 203    | 106  | 82     | 155  |       |     |      |  |
| 132    | 128    | 135  | 217    | 262  |       |     |      |  |
| TOTALS | 4873   | 3132 | 4064   | 4822 |       |     |      |  |

General Electric PBX (Model 37 Teletypes)

|             | 11/17 -<br>12/15 | 12/15 -<br>1/12 | 1/12 -<br>2/9 | 2/9 -<br>3/9 |
|-------------|------------------|-----------------|---------------|--------------|
| <u>Ext.</u> |                  |                 |               |              |
| 271         | 194              | 247             | 320           | 186          |
| 272         | 71               | 135             | 230           | 141          |
| 273         | 22               | 77              | 117           | 106          |
| 274         | 7                | 42              | 109           | 97           |
| 275         | 4                | 19              | 63            | 65           |
| 276         | 6                | 10              | 37            | 29           |
| 277         | 4                | 7               | 22            | 14           |
| 278         | 5                | 2               | 7             | 4            |

TOTALS 313 539 905 642

Other lines:

| <u>Ext.</u> | 6 | 5 | 1 | 2 |
|-------------|---|---|---|---|
| 1638        | * | * | * | * |
| 1639        | * | * | * | * |

Number of Calls Received by Multics Service Machine

Dataswitch

Level 7: (Model 37 Teletypes)

| Trunk       | 11/17-12/10 | 12/10-12/15 | 12/15-12/29 | 12/29-1/12 | 1/12-1/26 | 1/26-2/9 |
|-------------|-------------|-------------|-------------|------------|-----------|----------|
| 66          | 2           | 0           | 2           | 0          | 0         | 0        |
| 67          | 6           | 3           | 2           | 2          | 0         | 4        |
| 68          | *           | *           | *           | *          | *         | *        |
| 69          | 1           | 1           | 0           | 1          | 0         | 0        |
| 70          | 34          | 11          | 0           | 0          | 0         | 0        |
| 71          | 56          | 9           | 7           | 7          | 3         | 37       |
| 72          | 107         | 25          | 28          | 48         | 41        | 77       |
| 73          | 170         | 46          | 69          | 102        | 123       | 102      |
| 74          | 122         | 48          | 61          | 82         | 107       | 64       |
| 75          | 129         | 29          | 54          | 68         | 64        | 76       |
| 76          | 75          | 38          | 44          | 77         | 82        | 70       |
| 77          | 133         | 49          | 62          | 95         | 92        | 105      |
| 78          | 77          | 8           | 20          | 7          | 26        | 13       |
| 79          | 47          | 15          | 17          | 26         | 53        | 82       |
| TOTALS      | 959         | 282         | 366         | 515        | 591       | 620      |
| No. of Days | 23          | 5           | 14          | 14         | 14        | 14       |

\*Channel not currently in use.



Dataswitch  
 Level 8: (IBM 1050/2741)

| Trunk  | 11/17-12/10 | 12/10-12/15 | 12/15-12/29 | 12/29-1/12 | 1/12-1/26 | 1/26-2/9 |
|--------|-------------|-------------|-------------|------------|-----------|----------|
| 101    | 62          | 6           | 10          | 0          | 2         | 3        |
| 102    | 100         | 11          | 17          | 4          | 37        | 11       |
| 103    | 77          | 10          | 3           | 0          | 11        | 12       |
| 104    | 64          | 11          | 9           | 0          | 7         | 9        |
| 105    | 49          | 6           | 4           | 0          | 7         | 10       |
| 106    | 111         | 19          | 11          | 18         | 44        | 39       |
| 107    | 141         | 1           | 5           | 15         | 13        | 18       |
| 108    | 181         | 17          | 21          | 37         | 79        | 52       |
| 109    | 74          | 32          | 72          | 85         | 123       | 79       |
| 110    | 179         | 67          | 98          | 149        | 165       | 137      |
| 111    | 10          | 43          | 35          | 69         | 31        | 75       |
| 112    | 10          | 18          | 24          | 19         | 3         | 1        |
| 113    | 30          | 17          | 12          | 1          | 1         | 4        |
| 114    | 73          | 11          | 16          | 40         | 50        | 37       |
| 115    | 132         | 31          | 59          | 109        | 108       | 84       |
| 116    | 173         | 64          | 108         | 150        | 153       | 137      |
| 117    | 111         | 104         | 105         | 107        | 143       | 66       |
| 118    | 51          | 65          | 65          | 84         | 96        | 69       |
| 119    | 156         | 42          | 38          | 43         | 73        | 49       |
| 120    | 119         | 65          | 38          | 42         | 65        | 58       |
| 121    | 181         | 41          | 58          | 100        | 107       | 86       |
| 122    | 419         | 148         | 121         | 276        | 236       | 195      |
| 123    | 70          | 1           | 4           | 20         | 25        | 30       |
| 124    | 101         | 6           | 16          | 18         | 20        | 13       |
| 125    | 151         | 25          | 26          | 50         | 100       | 35       |
| 126    | 213         | 61          | 64          | 96         | 151       | 65       |
| 127    | 270         | 76          | 51          | 106        | 189       | 101      |
| 128    | 1           | 0           | 0           | 0          | 0         | 3        |
| 129    | 95          | 27          | 54          | 33         | 71        | 73       |
| 130    | 107         | 6           | 26          | 50         | 54        | 50       |
| 131    | 182         | 21          | 36          | 70         | 36        | 46       |
| 132    | 60          | 68          | 42          | 93         | 121       | 96       |
| TOTALS | 3753        | 1120        | 1248        | 1884       | 2321      | 1743     |

General Electric  
PBX (Model 37 Teletypes)

| Ext.   | 11/17-12/10 | 12/10-12/15 | 12/15-12/29 | 12/29-1/12 | 1/12-1/26 | 1/26-2/9 |
|--------|-------------|-------------|-------------|------------|-----------|----------|
| 271    | 132         | 62          | 104         | 143        | 174       | 146      |
| 272    | 47          | 24          | 39          | 96         | 132       | 98       |
| 273    | 17          | 5           | 15          | 62         | 66        | 51       |
| 274    | 4           | 3           | 5           | 37         | 56        | 53       |
| 275    | 3           | 1           | 1           | 18         | 38        | 25       |
| 276    | 3           | 3           | 0           | 10         | 20        | 17       |
| 277    | 4           | 0           | 0           | 7          | 15        | 7        |
| 278    | 4           | 1           | 0           | 2          | 6         | 1        |
| TOTALS | 214         | 99          | 164         | 375        | 507       | 398      |

Other Lines:

| Ext. | 11/17-12/10 | 12/10-12/15 | 12/15-12/29 | 12/29-1/12 | 1/12-1/26 | 1/26-2/9 |
|------|-------------|-------------|-------------|------------|-----------|----------|
| 1638 | 4           | 2           | 5           | 0          | 1         | 0        |
| 1639 | *           | *           | *           | *          | *         | *        |

\* Line in use whenever system is running; dialups are not counted.