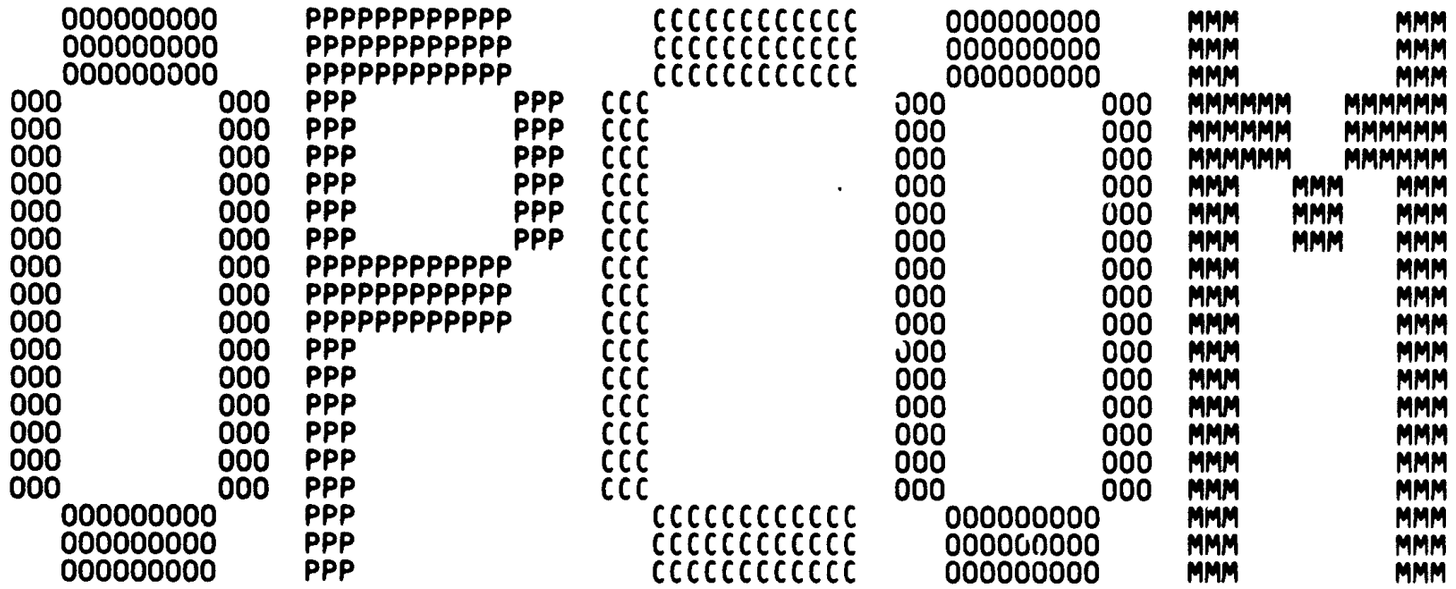

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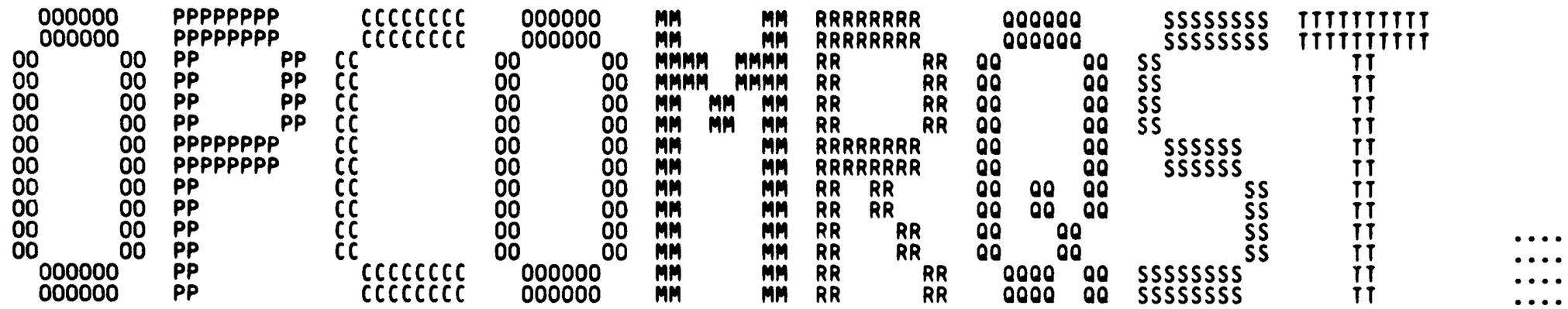
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```
;     1          0001  0 MODULE  OPC$OPCOMRQST   (
;     2          0002  0                         LANGUAGE (BLISS32),
;     3          0003  0                         IDENT = 'V04-000'
;     4          0004  0                        ) =
;     5          0005  0
;     6          0006  0 !*****************************************************************************
;     7          0007  0 !*                                                                           *
;     8          0008  0 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                 *
;     9          0009  0 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                   *
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;    18          0018  0 !*                                                                           *
;    19          0019  0 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE   *
;    20          0020  0 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
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;    22          0022  0 !*                                                                           *
;    23          0023  0 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS   *
;    24          0024  0 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
;    25          0025  0 !*                                                                           *
;    26          0026  0 !*                                                                           *
;    27          0027  0 !*****************************************************************************
;    28          0028  0
;    29          0029  0 !++
;    30          0030  0 ! FACILITY:
;    31          0031  0 !
;    32          0032  0 !       OPCOM
;    33          0033  0 !
;    34          0034  0 ! ABSTRACT:
;    35          0035  0 !
;    36          0036  0 !       This module contains the specialized logic to service
;    37          0037  0 !       a particular type of request sent by a user to OPCOM.
;    38          0038  0 !
;    39          0039  0 ! Environment:
;    40          0040  0 !
;    41          0041  0 !       VAX/VMS operating system.
;    42          0042  0 !
;    43          0043  0 ! Author:
;    44          0044  0 !
;    45          0045  0 !       Steven T. Jeffreys
;    46          0046  0 !
;    47          0047  0 ! Creation date:
;    48          0048  0 !
;    49          0049  0 !       March 10, 1981
;    50          0050  0 !
;    51          0051  0 ! Revision history:
;    52          0052  0 !
;    53          0053  0 !       V03-002 CWH3001         CW Hobbs                16-Sep-1983
;    54          0054  0 !               Use jacket routines for VM calls.
;    55          0055  0 !
;    56          0056  0 !       V03-001 CWH3001         CW Hobbs                30-Jul-1983
;    57          0057  0 !               Various and sundry things to make OPCOM distributed
```

```
;    58          0058  0 !                    across the cluster.
;    59          0059  0 !
;    60          0060  0 ! V02-0164       STJ0164         Steven T. Jeffreys,     08-Feb-1982
;    61          0061  0 !                    Make references to library routines use general addressing mode.
;    62          0062  0 !
;    63          0063  0 !--
;    64          0064  0
;    65          0065  1 BEGIN                                           ! Start of OPCOMRQST
;    66          0066  1
;    67          0067  1 LIBRARY 'SYS$LIBRARY:LIB.L32';
;    68          0068  1 LIBRARY 'LIB$:OPCOMLIB';
;    69          0069  1
;    70          0070  1 FORWARD ROUTINE
;    71          0071  1         REQUEST_HANDLER : NOVALUE,              ! Handle normal request
;    72          0072  1         REQUEST_CLM_HANDLER : NOVALUE,          ! Handle request from remote node
;    73          0073  1         REQUEST_CLM_CHECK_HANDLER : NOVALUE;    ! Check to see if request is in database
;    74          0074  1
;    75          0075  1 BUILTIN
;    76          0076  1         INSQUE,                                 ! Insert entry onto a queue
;    77          0077  1         REMQUE;                                 ! Remove entry from a queue
;    78          0078  1
;    79          0079  1 EXTERNAL
;    80          0080  1         LCL_NOD         : $ref_bblock,
;    81          0081  1         NOD_HEAD        : VECTOR [2, LONG],
;    82          0082  1         GLOBAL_STATUS   : BITVECTOR,            ! Global status bits
;    83          0083  1         REQUEST_NUMBER  : LONG;                 ! Current request #
;    84          0084  1
;    85          0085  1 EXTERNAL ROUTINE
;    86          0086  1         CHECK_REQUEST,                          ! Common sanity checks
;    87          0087  1         CLUSMSG_CONV_CLM_RQCB,                  ! Convert cluster message to RQCB
;    88          0088  1         CLUSMSG_RQCB_SEND,                      ! Send RQCB to remote nodes
;    89          0089  1         CLUSUTIL_INCR_SEQUENCE,                 ! Cluster-unique sequence incrementor
;    90          0090  1         DEALLOCATE_MCB  : NOVALUE,              ! Dispose of an MCB
;    91          0091  1         DEALLOCATE_RQCB : NOVALUE,              ! Dispose of an RQCB
;    92          0092  1         DUMP_LOG_FILE,                          ! Write random string to log file
;    93          0093  1         FIND_OCD,                               ! Find a given OCD
;    94          0094  1         FORMAT_MESSAGE,                         ! Format a message and create an MCB
;    95          0095  1         LOG_MESSAGE,                            ! Write a message to a logfile
;    96          0096  1         NOTIFY_LISTED_OPERATORS,                ! Notify operators on an operator list
;    97          0097  1         SEND_REPLY,                             ! Send reply to a requestor
;    98          0098  1         TRIM_LENGTH;                            ! Length with trailing spaces trimmed
```

```
;  100          0099  1 GLOBAL ROUTINE REQUEST_HANDLER (BUFFER_DESC) : NOVALUE =
;  101          0100  1
;  102          0101  1 !++
;  103          0102  1 ! Functional description:
;  104          0103  1 !
;  105          0104  1 !       This routine is the handler for all REQUEST messages received by OPCOM.
;  106          0105  1 !
;  107          0106  1 !
;  108          0107  1 ! Input:
;  109          0108  1 !
;  110          0109  1 !       BUFFER_DESC : The address of a quadword buffer descriptor that
;  111          0110  1 !                     describes the buffer containing the message.
;  112          0111  1 !
;  113          0112  1 ! Implicit Input:
;  114          0113  1 !
;  115          0114  1 !       None.
;  116          0115  1 !
;  117          0116  1 ! Output:
;  118          0117  1 !
;  119          0118  1 !       None.
;  120          0119  1 !
;  121          0120  1 ! Implict output:
;  122          0121  1 !
;  123          0122  1 !       Some accounting data will be updated
;  124          0123  1 !       to reflect the receipt of the message.
;  125          0124  1 !
;  126          0125  1 ! Side effects:
;  127          0126  1 !
;  128          0127  1 !       None.
;  129          0128  1 !
;  130          0129  1 ! Routine value:
;  131          0130  1 !
;  132          0131  1 !       None.
;  133          0132  1 !--
;  134          0133  1
;  135          0134  2 BEGIN                                           ! Start of REQUEST_HANDLER
;  136          0135  2
;  137          0136  2 MAP
;  138          0137  2
;  139          0138  2         BUFFER_DESC     : $ref_bblock;
;  140          0139  2
;  141          0140  2 LOCAL
;  142          0141  2         MESSAGE_VECTOR  : VECTOR [9, LONG],     ! Message info
;  143          0142  2         ON_BUF          : VECTOR [64, BYTE],    ! Buffer for preposition (" on " node)
;  144          0143  2         ON_DSC          : VECTOR [2, LONG]      ! Desc for preposition
;  145          0144  2                         INITIAL (64, ON_BUF),
;  146          0145  2         RQCB            : $ref_bblock,          ! RQCB data structure
;  147          0146  2         OCD             : $ref_bblock,          ! OCD data structure
;  148          0147  2         MCB             : $ref_bblock,          ! MCB data structure
;  149          0148  2         MSG             : $ref_bblock,          ! Pointer to user request
;  150          0149  2         FOUND           : LONG,                 ! Boolean
;  151          0150  2         SCOPE           : LONG,                 ! Scope of request
;  152          0151  2         SCOPE_LIMIT     : LONG,                 ! Loop control
;  153          0152  2         STATUS          : LONG;
;  154          0153  2
;  155          0154  2 EXTERNAL
;  156          0155  2         LCL_NODENAME    : $bblock;              ! Name of local node (DECnet or cluster)
```

```
;  157          0156  2 !
;  158          0157  2 ! Make sure there is enough data in the request.
;  159          0158  2 !
;  160          0159  3 IF .BUFFER_DESC [DSC$W_LENGTH] LSS (OPC$K_COMHDRSIZ + OPC$K_REQUEST_MIN_SIZE)
;  161          0160  2 THEN
;  162          0161  2     RETURN;                                     ! Ignore the request
;  163          0162  2 !
;  164          0163  2 ! Do some common sanity checks.
;  165          0164  2 !
;  166          0165  2 IF NOT CHECK_REQUEST (.BUFFER_DESC, RQCB)
;  167          0166  2 THEN
;  168          0167  2     RETURN;
;  169          0168  2 MESSAGE_VECTOR [0] = 0;                         ! Assume no errors                    55
;  170          0169  2 !
;  171          0170  2 ! See if the requestor is issuing this request on another's behalf.
;  172          0171  2 ! If so, and the requestor does not have the privilege to do so,
;  173          0172  2 ! then dismiss the request.
;  174          0173  2 !
;  175          0174  2 IF .RQCB [RQCB_L_SENDERUIC] NEQ .RQCB [RQCB_L_UIC]
;  176          0175  2 THEN
;  177          0176  3     IF  (NOT .$bblock [RQCB [RQCB_L_PRIVMASK1], PRV$V_OPER])
;  178          0177  2     THEN
;  179          0178  3         IF NOT ((.$bblock [RQCB [RQCB_L_SENDERUIC], 2,0,16,0] EQL .$bblock [RQCB [RQCB_L_UIC], 2,0,16,0]) AN
;  180          0179  3                 (.$bblock [RQCB [RQCB_L_PRIVMASK1], PRV$V_GROUP]))
;  181          0180  2         THEN
;  182          0181  3             BEGIN
;  183          0182  3             MESSAGE_VECTOR [0] = OPC$_ILLRQST;
;  184          0183  3             MESSAGE_VECTOR [1] = 0;
;  185          0184  2             END;
;  186          0185  2 !
;  187          0186  2 ! Create a descriptor within the RQCB to point to the request text.
;  188          0187  2 !
;  189          0188  2 MSG = .BUFFER_DESC [DSC$A_POINTER] + OPC$K_COMHDRSIZ;
;  190          0189  2 RQCB [RQCB_L_TEXT_LEN] = .MSG [OPC$W_REQUEST_LENGTH];
;  191          0190  3 IF (.RQCB [RQCB_L_TEXT_LEN] GTR 0)
;  192          0191  2 THEN
;  193          0192  3     BEGIN
;  194          0193  3     !
;  195          0194  3     ! Create a buffer for the request text and copy the text to the buffer.
;  196          0195  3     !
;  197          0196  4     IF NOT (STATUS = OPC$GET_VM (RQCB [RQCB_L_TEXT_LEN], RQCB [RQCB_L_TEXT_PTR]))
;  198          0197  3     THEN
;  199          0198  4         BEGIN
;  200          0199  4         DEALLOCATE_RQCB (.RQCB);
;  201          0200  4         RETURN;
;  202          0201  3         END;
;  203          0202  3     CH$MOVE (.RQCB [RQCB_L_TEXT_LEN], MSG [OPC$T_REQUEST_TEXT], .RQCB [RQCB_L_TEXT_PTR]);
;  204          0203  3     END
;  205          0204  2 ELSE
;  206          0205  3     BEGIN
;  207          0206  3     !
;  208          0207  3     ! There is no request text.  Inform the requestor that this is not allowed.
;  209          0208  3     !
;  210          0209  3     MESSAGE_VECTOR [0] = OPC$_ILLRQST;
;  211          0210  3     MESSAGE_VECTOR [1] = 0;
;  212          0211  2     END;
;  213          0212  2 !
```

```
;  214          0213  2 ! Find an OCD that can handle this request. The OCD is selected
;  215          0214  2 ! according to the SCOPE and UIC of the requestor.  If the SCOPE
;  216          0215  2 ! is unspecified, then look for operator coverage starting in the
;  217          0216  2 ! least privileged scope and continuing to the most privileged.
;  218          0217  2 ! If no OCD is found, then dismiss the request.
;  219          0218  2 !
;  220          0219  3 IF (.RQCB [RQCB_B_SCOPE] EQL OPC$K_UNSPEC)
;  221          0220  2 THEN
;  222          0221  2     SCOPE_LIMIT = OPC$K_SYSTEM
;  223          0222  2 ELSE
;  224          0223  2     SCOPE_LIMIT = .RQCB [RQCB_B_SCOPE];
;  225          0224  2 FOUND = FALSE;
;  226          0225  2 SCOPE = .RQCB [RQCB_B_SCOPE];
;  227          0226  2 WHILE (.SCOPE GEQ .SCOPE_LIMIT) AND (NOT .FOUND) DO
;  228          0227  3     IF NOT (FOUND = FIND_OCD (.SCOPE, .RQCB [RQCB_L_UIC], OCD))
;  229          0228  2     THEN
;  230          0229  2         SCOPE = .SCOPE - 1;
;  231          0230  2 IF NOT .FOUND
;  232          0231  2 THEN
;  233          0232  3     BEGIN
;  234          0233  3     MESSAGE_VECTOR [0] = OPC$_NOPERATOR;                ! No operator coverage
;  235          0234  3     MESSAGE_VECTOR [1] = 0;
;  236          0235  2     END;
;  237          0236  2 !
;  238          0237  2 ! If there is an error message to output,
;  239          0238  2 ! do so and dismiss the request.
;  240          0239  2 !
;  241          0240  2 IF .MESSAGE_VECTOR [0] NEQ 0
;  242          0241  2 THEN
;  243          0242  3     BEGIN
;  244          0243  3     FORMAT_MESSAGE (.RQCB, MESSAGE_VECTOR);
;  245          0244  3     SEND_REPLY (.RQCB, MESSAGE_VECTOR);
;  246          0245  3     DEALLOCATE_RQCB (.RQCB);
;  247          0246  3     RETURN;
;  248          0247  2     END;
;  249          0248  2 !
;  250          0249  2 ! Set the scope of the request.
;  251          0250  2 ! Format the request message and send it to all
;  252          0251  2 ! interested operators on the OCD's operator list.
;  253          0252  2 !
;  254          0253  2 RQCB [RQCB_L_OCD] = .OCD;                           ! Save OCD address
;  255          0254  2 RQCB [RQCB_B_SCOPE] = .OCD [OCD_B_SCOPE];           ! Set request scope
;  256          0255  2 IF .LCL_NODENAME [DSC$W_LENGTH] NEQ 0
;  257          0256  2 THEN
;  258          0257  3     BEGIN
;  259          0258  4     IF NOT (STATUS = $GETMSG (MSGID=OPC$_ON_NODE, MSGLEN=ON_DSC, BUFADR=ON_DSC, FLAGS=1))
;  260          0259  3     THEN
;  261          0260  3         $signal_stop (.STATUS);
;  262          0261  3     END
;  263          0262  2 ELSE
;  264          0263  2     ON_DSC [0] = 0;
;  265          0264  2 IF .RQCB [RQCB_W_REPLYMBX] NEQ 0                    ! Set the message code
;  266          0265  2 THEN
;  267          0266  3     BEGIN                                           ! Request with reply expected
;  268          0267  3     REQUEST_NUMBER = CLUSUTIL_INCR_SEQUENCE (.REQUEST_NUMBER);  ! Increment the number of request
;  269          0268  3     RQCB [RQCB_L_RQSTNUM] = .REQUEST_NUMBER;        ! Set the request number
;  270          0269  3     MESSAGE_VECTOR [0] = OPC$_USERQST;              ! Set the message code
```

```
;  271          0270  3      MESSAGE_VECTOR [1] = 0;                                  ! Set the message Nargs
;  272          0271  3      MESSAGE_VECTOR [2] = .RQCB [RQCB_L_RQSTNUM];             ! Set the request number
;  273          0272  3      MESSAGE_VECTOR [3] = .RQCB [RQCB_W_USERNAMELEN];         ! Set the username string length
;  274          0273  3      MESSAGE_VECTOR [4] = RQCB [RQCB_T_USERNAME];             ! Set the username string addr
;  275          0274  3      MESSAGE_VECTOR [5] = ON_DSC;                             ! The " on " field
;  276          0275  3      MESSAGE_VECTOR [6] = .LCL_NODENAME [DSC$W_LENGTH];       ! Length of nodename
;  277          0276  3      MESSAGE_VECTOR [7] = .LCL_NODENAME [DSC$A_POINTER];      ! Length of nodename
;  278          0277  3      MESSAGE_VECTOR [8] = RQCB [RQCB_L_TEXT_LEN];             ! Set address request descriptor
;  279          0278  3      END
;  280          0279  2  ELSE
;  281          0280  3      BEGIN                                                    ! Request with no reply expected
;  282          0281  3      MESSAGE_VECTOR [0] = OPC$_USERMSG;                       ! Set message code
;  283          0282  3      MESSAGE_VECTOR [1] = 0;                                  ! Set number of paramters
;  284          0283  3      MESSAGE_VECTOR [2] = .RQCB [RQCB_W_USERNAMELEN];         ! Set the username string length
;  285          0284  3      MESSAGE_VECTOR [3] = RQCB [RQCB_T_USERNAME];             ! Set the username string addr
;  286          0285  3      MESSAGE_VECTOR [4] = ON_DSC;                             ! The " on " field
;  287          0286  3      MESSAGE_VECTOR [5] = .LCL_NODENAME [DSC$W_LENGTH];       ! Length of nodename
;  288          0287  3      MESSAGE_VECTOR [6] = .LCL_NODENAME [DSC$A_POINTER];      ! Length of nodename
;  289          0288  3      MESSAGE_VECTOR [7] = RQCB [RQCB_L_TEXT_LEN];             ! Set address request descriptor
;  290          0289  2      END;
;  291          0290  2  FORMAT_MESSAGE (.RQCB, MESSAGE_VECTOR);                     ! Format the message
;  292          0291  2  IF NOTIFY_LISTED_OPERATORS (.RQCB)
;  293          0292  2  THEN
;  294          0293  3      BEGIN
;  295          0294  3      !
;  296          0295  3      ! At least one operator was notified of the request, so send it off to the cluster.
;  297          0296  3      ! Note that NOTIFY_LISTED_OPERATORS returns true if a remote operator is enabled for the
;  298          0297  3      ! request, even if no operators on the local node were notified.
;  299          0298  3      !
;  300          0299  3      CLUSMSG_RQCB_SEND (-1, CLM__REQUEST, .RQCB);             ! Send it everywhere
;  301          0300  3      !
;  302          0301  3      ! If the request expects a reply, then queue the RQCB
;  303          0302  3      ! onto the OCD for future reference.  Log the request.
;  304          0303  3      !
;  305          0304  3      LOG_MESSAGE (.RQCB);
;  306          0305  3      IF .RQCB [RQCB_W_REPLYMBX] NEQ 0
;  307          0306  3      THEN
;  308          0307  4          BEGIN
;  309          0308  4          INSQUE (.RQCB, .OCD [OCD_L_RQSTFLINK]);
;  310          0309  4          OCD [OCD_W_RQSTCOUNT] = .OCD [OCD_W_RQSTCOUNT] + 1;
;  311          0310  4          $bblock [RQCB [RQCB_L_OPTIONS], OPC$V_NOBRD] = 0;    ! Clear option bits
;  312          0311  4          $bblock [RQCB [RQCB_L_OPTIONS], OPC$V_NOLOG] = 0;
;  313          0312  4          END
;  314          0313  3      ELSE
;  315          0314  3          DEALLOCATE_RQCB (.RQCB);                             ! Dellocate the RQCB
;  316          0315  3      END
;  317          0316  2  ELSE
;  318          0317  3      BEGIN
;  319          0318  3      !
;  320          0319  3      ! None of the operators on the OCD's operator list were
;  321          0320  3      ! enabled to receive the request.  If no reply is expected,
;  322          0321  3      ! just return.  If a reply was expected, then cancel the
;  323          0322  3      ! request and log the cancelation.
;  324          0323  3      !
;  325          0324  3      IF .RQCB [RQCB_W_REPLYMBX] NEQ 0
;  326          0325  3      THEN
;  327          0326  4          BEGIN
```

```
;  328          0327  4          MESSAGE_VECTOR [0] = OPC$_NOPERATOR;
;  329          0328  4          MESSAGE_VECTOR [1] = 0;
;  330          0329  4          FORMAT_MESSAGE (.RQCB, MESSAGE_VECTOR);
;  331          0330  4          SEND_REPLY (.RQCB);
;  332          0331  4          LOG_MESSAGE (.RQCB);
;  333          0332  3          END;
;  334          0333  3      DEALLOCATE_RQCB (.RQCB);
;  335          0334  2      END;
;  336          0335  2
;  337          0336  1 END;                                    ! End of REQUEST_HANDLER


                                                               .TITLE  OPC$OPCOMRQST
                                                               .IDENT  \V04-000\

                                                               .EXTRN  LCL_NOD, NOD_HEAD
                                                               .EXTRN  GLOBAL_STATUS, REQUEST_NUMBER
                                                               .EXTRN  CHECK_REQUEST, CLUSMSG_CONV_CLM_RQCB
                                                               .EXTRN  CLUSMSG_RQCB_SEND
                                                               .EXTRN  CLUSUTIL_INCR_SEQUENCE
                                                               .EXTRN  DEALLOCATE_MCB, DEALLOCATE_RQCB
                                                               .EXTRN  DUMP_LOG_FILE, FIND_OCD
                                                               .EXTRN  FORMAT_MESSAGE, LOG_MESSAGE
                                                               .EXTRN  NOTIFY_LISTED_OPERATORS
                                                               .EXTRN  SEND_REPLY, TRIM_LENGTH
                                                               .EXTRN  LCL_NODENAME, OPC$GET_VM
                                                               .EXTRN  SYS$GETMSG, LIB$STOP

                                                               .PSECT  $CODE$,NOWRT,2

                                        0FFC 00000             .ENTRY  REQUEST_HANDLER, Save R2,R3,R4,R5,R6,R7,R8,-; 0099
                                                                       R9,R10,R11
                                  5B    0000G  CF   9E 00002          MOVAB   FORMAT_MESSAGE, R11
                                  5A    0000G  CF   9E 00007          MOVAB   LCL_NODENAME, R10
                                  5E      8C   AE   9E 0000C          MOVAB   -116(SP), SP
                              08  AE      40   8F   9A 00010          MOVZBL  #64, ON_DSC                             ; 0134
                              0C  AE      10   AE   9E 00015          MOVAB   ON_BUF, ON_DSC+4
                                  52      04   AC   D0 0001A          MOVL    BUFFER_DESC, R2                         ; 0159
                            0042  8F           62   B1 0001E          CMPW    (R2), #66
                                               01   1E 00023          BGEQU   1$
                                               04   00025            RET
                                        4004   8F   BB 00026 1$:      PUSHR   #^M<R2,SP>                              ; 0165
                          0000G CF              02   FB 0002A          CALLS   #2, CHECK_REQUEST
                                  01            50   E8 0002F          BLBS    R0, 2$
                                               04   00032            RET
                                        50      AE   D4 00033 2$:      CLRL    MESSAGE_VECTOR                          ; 0168
                                  56            6E   D0 00036          MOVL    RQCB, R6                                ; 0174
                                  50      38    A6   9E 00039          MOVAB   56(R6), R0
                                  57      68    A6   9E 0003D          MOVAB   104(R6), R7
                                  67            60   D1 00041          CMPL    (R0), (R7)
                                               1B   13 00044          BEQL    4$
                          16      32    A6           02   E0 00046          BBS     #2, 50(R6), 4$                  ; 0176
                                  02    A7      02   A0   B1 0004B          CMPW    2(R0), 2(R7)                    ; 0178
                                               04   12 00050          BNEQ    3$
                                  0B      31   A6   E8 00052          BLBS    49(R6), 4$                              ; 0179
                              50  AE  0005807C  8F   D0 00056 3$:      MOVL    #360572, MESSAGE_VECTOR                 ; 0182
                                        54      AE   D4 0005E          CLRL    MESSAGE_VECTOR+4                        ; 0183
```

```
                    52      04     A2                    26  C1 00061 4$:     ADDL3   #38, 4(R2), MSG                 ; 0188
                                   58          0084       C6  9E 00066       MOVAB   132(R6), R8                     ; 0189
                                   68            1A       A2  3C 0006B       MOVZWL  26(MSG), (R8)                   ;
                                                 1A       15  0006F       BLEQ    5$                              ; 0190
                                              0088        C6  9F 00071       PUSHAB  136(R6)                         ; 0196
                                                          58  DD 00075       PUSHL   R8                              ;
                                  0000G     CF            02  FB 00077       CALLS   #2, OPC$GET_VM                  ;
                                              59          50  D0 0007C       MOVL    R0, STATUS                      ;
                                              69          59  E9 0007F       BLBC    STATUS, 12$                     ;
                          0088    D6        1C     A2     68  28 00082       MOVC3   (R8), 28(MSG), @136(R6)         ; 0202
                                                          0B  11 00089       BRB     6$                              ; 0190
                                  50        AE 0005807C     8F  D0 0008B 5$:     MOVL    #360572, MESSAGE_VECTOR         ; 0209
                                              54          AE  D4 00093       CLRL    MESSAGE_VECTOR+4                ; 0210
                                              04          53  A6  91 00096 6$:     CMPB    83(R6), #4                      ; 0219
                                                          05  12  0009A       BNEQ    7$                              ;
                                              53          01  D0  0009C       MOVL    #1, SCOPE_LIMIT                 ; 0221
                                                          04  11  0009F       BRB     8$                              ;
                                              53          53  A6  9A 000A1 7$:     MOVZBL  83(R6), SCOPE_LIMIT             ; 0223
                                                          50  D4  000A5 8$:     CLRL    FOUND                           ; 0224
                                              52          53  A6  9A 000A7       MOVZBL  83(R6), SCOPE                   ; 0225
                                              53              52  D1  000AB 9$:     CMPL    SCOPE, SCOPE_LIMIT              ; 0226
                                                              16  19  000AE       BLSS    10$                             ;
                                              21              50  E8  000B0       BLBS    FOUND, 11$                      ;
                                                        04    AE  9F  000B3       PUSHAB  OCD                             ; 0227
                                                              67  DD  000B6       PUSHL   (R7)                            ;
                                                              52  DD  000B8       PUSHL   SCOPE                           ;
                                  0000G     CF                03  FB  000BA       CALLS   #3, FIND_OCD                    ;
                                              E9              50  E8  000BF       BLBS    FOUND, 9$                       ;
                                                              52  D7  000C2       DECL    SCOPE                           ; 0229
                                                              E5  11  000C4       BRB     9$                              ; 0227
                                              0B              50  E8  000C6 10$:     BLBS    FOUND, 11$                      ; 0230
                                50        AE 00058061         8F  D0  000C9       MOVL    #360545, MESSAGE_VECTOR         ; 0233
                                                    54        AE  D4  000D1       CLRL    MESSAGE_VECTOR+4                ; 0234
                                                    50        AE  D5  000D4 11$:     TSTL    MESSAGE_VECTOR                  ; 0240
                                                              15  13  000D7       BEQL    13$                             ;
                                                    50        AE  9F  000D9       PUSHAB  MESSAGE_VECTOR                  ; 0243
                                                              56  DD  000DC       PUSHL   R6                              ;
                                              6B              02  FB  000DE       CALLS   #2, FORMAT_MESSAGE              ;
                                                    50        AE  9F  000E1       PUSHAB  MESSAGE_VECTOR                  ; 0244
                                                              56  DD  000E4       PUSHL   R6                              ;
                                  0000G     CF                02  FB  000E6       CALLS   #2, SEND_REPLY                  ;
                                                          010D  31  000EB 12$:     BRW     19$                             ; 0245
                                              52          04  AE  D0  000EE 13$:     MOVL    OCD, R2                         ; 0253
                                        24    A6              52  D0  000F2       MOVL    R2, 36(R6)                      ;
                                        53    A6        0B    A2  90  000F6       MOVB    11(R2), 83(R6)                  ; 0254
                                                              6A  B5  000FB       TSTW    LCL_NODENAME                    ; 0255
                                                              26  13  000FD       BEQL    14$                             ;
                                              7E              01  7D  000FF       MOVQ    #1, -(SP)                       ; 0258
                                                        10    AE  9F  00102       PUSHAB  ON_DSC                          ;
                                                        14    AE  9F  00105       PUSHAB  ON_DSC                          ;
                                                    000582AB    8F  DD  00108       PUSHL   #361131                         ;
                                00000000G     00                05  FB  0010E       CALLS   #5, SYS$GETMSG                  ;
                                              59                50  D0  00115       MOVL    R0, STATUS                      ;
                                              0D                59  E8  00118       BLBS    STATUS, 15$                     ;
                                                                59  DD  0011B       PUSHL   STATUS                          ; 0260
                                00000000G     00                01  FB  0011D       CALLS   #1, LIB$STOP                    ;
                                                                    04  00124       RET                                     ;
```

```
                        08   AE   D4 00125 14$:    CLRL    ON_DSC                                  ; 0263
                53      3C   A6   9E 00128 15$:    MOVAB   60(R6), R3                              ; 0273
                        2E   A6   B5 0012C         TSTW    46(R6)                                  ; 0264
                             41   13 0012F         BEQL    16$                                     ;
                    0000G    CF   DD 00131         PUSHL   REQUEST_NUMBER                          ; 0267
          0000G     CF             01 FB 00135    CALLS   #1, CLUSUTIL_INCR_SEQUENCE              ;
          0000G     CF             50 D0 0013A    MOVL    R0, REQUEST_NUMBER                      ;
            70      A6    0000G    CF D0 0013F    MOVL    REQUEST_NUMBER, 112(R6)                 ; 0268
            50      AE  000580AB   8F D0 00145    MOVL    #360619, MESSAGE_VECTOR                 ; 0269
                           54      AE D4 0014D    CLRL    MESSAGE_VECTOR+4                        ; 0270
            58      AE        70   A6 D0 00150    MOVL    112(R6), MESSAGE_VECTOR+8               ; 0271
            5C      AE        74   A6 3C 00155    MOVZWL  116(R6), MESSAGE_VECTOR+12              ; 0272
            60      AE             53 D0 0015A    MOVL    R3, MESSAGE_VECTOR+16                   ; 0273
            64      AE        08   AE 9E 0015E    MOVAB   ON_DSC, MESSAGE_VECTOR+20               ; 0274
            68      AE             6A 3C 00163    MOVZWL  LCL_NODENAME, MESSAGE_VECTOR+24         ; 0275
            6C      AE        04   AA D0 00167    MOVL    LCL_NODENAME+4, MESSAGE_VECTOR+28       ; 0276
            70      AE             58 D0 0016C    MOVL    R8, MESSAGE_VECTOR+32                   ; 0277
                             26   11 00170        BRB     17$                                     ; 0264
            50      AE  000580B3   8F D0 00172 16$:    MOVL    #360627, MESSAGE_VECTOR             ; 0281
                           54      AE D4 0017A    CLRL    MESSAGE_VECTOR+4                        ; 0282
            58      AE        74   A6 3C 0017D    MOVZWL  116(R6), MESSAGE_VECTOR+8               ; 0283
            5C      AE             53 D0 00182    MOVL    R3, MESSAGE_VECTOR+12                   ; 0284
            60      AE        08   AE 9E 00186    MOVAB   ON_DSC, MESSAGE_VECTOR+16               ; 0285
            64      AE             6A 3C 0018B    MOVZWL  LCL_NODENAME, MESSAGE_VECTOR+20         ; 0286
            68      AE        04   AA D0 0018F    MOVL    LCL_NODENAME+4, MESSAGE_VECTOR+24       ; 0287
            6C      AE             58 D0 00194    MOVL    R8, MESSAGE_VECTOR+28                   ; 0288
                           50      AE 9F 00198 17$:    PUSHAB  MESSAGE_VECTOR                      ; 0290
                                   56 DD 0019B    PUSHL   R6                                      ;
                6B                 02 FB 0019D    CALLS   #2, FORMAT_MESSAGE                      ;
                                   56 DD 001A0    PUSHL   R6                                      ; 0291
          0000G     CF             01 FB 001A2    CALLS   #1, NOTIFY_LISTED_OPERATORS             ;
                    2B             50 E9 001A7    BLBC    R0, 18$                                 ;
                                   56 DD 001AA    PUSHL   R6                                      ; 0299
                                   0E DD 001AC    PUSHL   #14                                     ;
                    7E             01 CE 001AE    MNEGL   #1, -(SP)                               ;
          0000G     CF             03 FB 001B1    CALLS   #3, CLUSMSG_RQCB_SEND                   ;
                                   56 DD 001B6    PUSHL   R6                                      ; 0304
          0000G     CF             01 FB 001B8    CALLS   #1, LOG_MESSAGE                         ;
                        2E   A6    B5 001BD       TSTW    46(R6)                                  ; 0305
                             39    13 001C0       BEQL    19$                                     ;
            3C      B2             66 0E 001C2    INSQUE  (R6), @60(R2)                           ; 0308
                    50       04    AE D0 001C6    MOVL    0CD, R0                                 ; 0309
                             3A    A0 B6 001CA    INCW    58(R0)                                  ;
                    50             6E D0 001CD    MOVL    RQCB, R0                                ; 0310
            54      A0             03 8A 001D0    BICB2   #3, 84(R0)                              ; 0311
                                   04 001D4       RET                                             ; 0305
                        2E   A6    B5 001D5 18$:    TSTW    46(R6)                                 ; 0324
                             21    13 001D8       BEQL    19$                                     ;
            50      AE  00058061   8F D0 001DA    MOVL    #360545, MESSAGE_VECTOR                 ; 0327
                           54      AE D4 001E2    CLRL    MESSAGE_VECTOR+4                        ; 0328
                           50      AE 9F 001E5    PUSHAB  MESSAGE_VECTOR                          ; 0329
                                   56 DD 001E8    PUSHL   R6                                      ;
                6B                 02 FB 001EA    CALLS   #2, FORMAT_MESSAGE                      ;
                                   56 DD 001ED    PUSHL   R6                                      ; 0330
          0000G     CF             01 FB 001EF    CALLS   #1, SEND_REPLY                          ;
                                   56 DD 001F4    PUSHL   R6                                      ; 0331
          0000G     CF             01 FB 001F6    CALLS   #1, LOG_MESSAGE                         ;
```

```
                                56  DD 001FB 19$:    PUSHL   R6                              ; 0333
                      0000G  CF 01  FB 001FD         CALLS   #1, DEALLOCATE_RQCB             ;
                                04 00202             RET                                     ; 0336

; Routine Size:  515 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  339     0337  1 GLOBAL ROUTINE REQUEST_CLM_HANDLER (BUFFER_DESC : $ref_bblock, CLM : $ref_bblock, LEN) : NOVALUE =
;  340     0338  1
;  341     0339  1 !++
;  342     0340  1 ! Functional description:
;  343     0341  1 !
;  344     0342  1 !       This routine is the handler for all REQUEST messages received by OPCOM from remote nodes.
;  345     0343  1 !
;  346     0344  1 !
;  347     0345  1 ! Input:
;  348     0346  1 !
;  349     0347  1 !       BUFFER_DESC -   pointer to message from remote node, including $SNDOPR header
;  350     0348  1 !       CLM -           pointer to CLMRQCB structure
;  351     0349  1 !       LEN -           length of LEN
;  352     0350  1 !
;  353     0351  1 ! Implicit Input:
;  354     0352  1 !
;  355     0353  1 !       None.
;  356     0354  1 !
;  357     0355  1 ! Output:
;  358     0356  1 !
;  359     0357  1 !       None.
;  360     0358  1 !
;  361     0359  1 ! Implict output:
;  362     0360  1 !
;  363     0361  1 !       Some accounting data will be updated
;  364     0362  1 !       to reflect the receipt of the message.
;  365     0363  1 !
;  366     0364  1 ! Side effects:
;  367     0365  1 !
;  368     0366  1 !       None.
;  369     0367  1 !
;  370     0368  1 ! Routine value:
;  371     0369  1 !
;  372     0370  1 !       None.
;  373     0371  1 !--
;  374     0372  1
;  375     0373  2 BEGIN                                           ! Start of REQUEST_CLM_HANDLER
;  376     0374  2
;  377     0375  2 LOCAL
;  378     0376  2         RQCB            : $ref_bblock,          ! RQCB data structure
;  379     0377  2         OCD             : $ref_bblock,          ! OCD data structure
;  380     0378  2         MCB             : $ref_bblock,          ! MCB data structure
;  381     0379  2         MSG             : $ref_bblock,          ! Pointer to user request
;  382     0380  2         FOUND           : LONG,                 ! Boolean
;  383     0381  2         SCOPE           : LONG,                 ! Scope of request
;  384     0382  2         SCOPE_LIMIT     : LONG,                 ! Loop control
;  385     0383  2         STATUS          : LONG;
;  386     0384  2
;  387     0385  2
;  388     0386  2 !
;  389     0387  2 ! Check the version number of the message.  If the message is from any other version,
;  390     0388  2 ! simply ignore it.
;  391     0389  2 !
;  392     0390  2 IF .CLM [CLM_B_DS_VERSION] NEQ CLMRQCB_K_DS_VERSION
;  393     0391  2 THEN
;  394     0392  2     RETURN DUMP_LOG_FILE (.BUFFER_DESC, %ASCID 'CLM__REQUEST mismatch');
;  395     0393  2 !
```

```
;  396          0394  2 ! Allocate an RQCB and convert the message RQCB into the new RQCB
;  397          0395  2 !
;  398          0396  2 IF NOT CLUSMSG_CONV_CLM_RQCB (.CLM, RQCB)
;  399          0397  2 THEN
;  400          0398  2     RETURN DUMP_LOG_FILE (.BUFFER_DESC, ascid_INVALIDRQCB);
;  401          0399  2 !
;  402          0400  2 ! Find an OCD that can handle this request. The OCD is selected
;  403          0401  2 ! according to the SCOPE and UIC of the requestor.  If the SCOPE
;  404          0402  2 ! is unspecified, then look for operator coverage starting in the
;  405          0403  2 ! least privileged scope and continuing to the most privileged.
;  406          0404  2 ! If no OCD is found, then dismiss the request.
;  407          0405  2 !
;  408          0406  3 IF (.RQCB [RQCB_B_SCOPE] EQL OPC$K_UNSPEC)
;  409          0407  2 THEN
;  410          0408  2     SCOPE_LIMIT = OPC$K_SYSTEM
;  411          0409  2 ELSE
;  412          0410  2     SCOPE_LIMIT = .RQCB [RQCB_B_SCOPE];
;  413          0411  2 FOUND = FALSE;
;  414          0412  2 SCOPE = .RQCB [RQCB_B_SCOPE];
;  415          0413  2 WHILE (.SCOPE GEQ .SCOPE_LIMIT) AND (NOT .FOUND) DO
;  416          0414  3     IF NOT (FOUND = FIND_OCD (.SCOPE, .RQCB [RQCB_L_UIC], OCD))
;  417          0415  2     THEN
;  418          0416  2         SCOPE = .SCOPE - 1;
;  419          0417  2 IF NOT .FOUND
;  420          0418  2 THEN
;  421          0419  3     BEGIN
;  422          0420  3     DEALLOCATE_RQCB (.RQCB);
;  423          0421  3     RETURN;
;  424          0422  2     END;
;  425          0423  2 RQCB [RQCB_L_OCD] = .OCD;                    ! Save OCD address
;  426          0424  2 RQCB [RQCB_B_SCOPE] = .OCD [OCD_B_SCOPE];    ! Set request scope
;  427          0425  2 !
;  428          0426  2 ! Tell the world about the request, first to the log file, then to the operators.  We
;  429          0427  2 ! know that an operator was notified, otherwise the remote node would not have sent the
;  430          0428  2 ! message.
;  431          0429  2 !
;  432          0430  2 LOG_MESSAGE (.RQCB);
;  433          0431  2 NOTIFY_LISTED_OPERATORS (.RQCB);
;  434          0432  2 !
;  435          0433  2 ! At least one operator was notified of the request.  If the request expects a reply,
;  436          0434  2 ! then queue the RQCB onto the OCD for future reference.
;  437          0435  2 !
;  438          0436  2 IF .RQCB [RQCB_W_REPLYMBX] NEQ 0
;  439          0437  2 THEN
;  440          0438  3     BEGIN
;  441          0439  3     INSQUE (.RQCB, .OCD [OCD_L_RQSTFLINK]);
;  442          0440  3     OCD [OCD_W_RQSTCOUNT] = .OCD [OCD_W_RQSTCOUNT] + 1;
;  443          0441  3     $bblock [RQCB [RQCB_L_OPTIONS], OPC$V_NOBRD] = 0;   ! Clear option bits
;  444          0442  3     $bblock [RQCB [RQCB_L_OPTIONS], OPC$V_NOLOG] = 0;
;  445          0443  3     END
;  446          0444  2 ELSE
;  447          0445  2     DEALLOCATE_RQCB (.RQCB);                    ! Dellocate the RQCB
;  448          0446  2
;  449          0447  1 END;                                        ! End of REQUEST_CLM_HANDLER
```

```
                                                                        .PSECT  $PLIT$,NOWRT,NOEXE,2

69 6D 20 54 53 45 55 51 45 52 5F 5F 4D 4C 43  00000 P.AAB:  .ASCII  \CLM__REQUEST mismatch\<0><0><0>                ;
                  00 00 00 68 63 74 61 6D 73  0000F                                                               ;
                                              010E0015  00018 P.AAA:  .LONG   17694741                            ;
                                              00000000'  0001C        .ADDRESS P.AAB                              ;

                                                                        .EXTRN  ASCID_INVALIDRQCB

                                                                        .PSECT  $CODE$,NOWRT,2

                                                 001C 00000             .ENTRY  REQUEST_CLM_HANDLER, Save R2,R3,R4  ; 0337
                                           5E        08  C2 00002        SUBL2   #8, SP                              ;
                                           52     08   AC  D0 00005        MOVL    CLM, R2                             ; 0390
                                           02     02   A2  91 00009        CMPB    2(R2), #2                           ;
                                                       06  13 0000D        BEQL    1$                                  ;
                                                 0000' CF  9F 0000F        PUSHAB  P.AAA                               ; 0392
                                                       10  11 00013        BRB     2$                                  ;
                                                 4004  8F  BB 00015  1$:   PUSHR   #^M<R2,SP>                         ; 0396
                                        0000G    CF        02  FB 00019    CALLS   #2, CLUSMSG_CONV_CLM_RQCB           ;
                                           0D            50  E8 0001E    BLBS    R0, 3$                              ;
                                                 0000G CF  9F 00021        PUSHAB  ASCID_INVALIDRQCB                   ; 0398
                                                    04 AC  DD 00025  2$:   PUSHL   BUFFER_DESC                        ;
                                        0000G    CF        02  FB 00028    CALLS   #2, DUMP_LOG_FILE                   ;
                                                       04  00 0002D        RET                                         ;
                                           52            6E  D0 0002E  3$:   MOVL    RQCB, R2                            ; 0406
                                           04     53     A2  91 00031        CMPB    83(R2), #4                          ;
                                                       05  12 00035        BNEQ    4$                                  ;
                                           54            01  D0 00037        MOVL    #1, SCOPE_LIMIT                     ; 0408
                                                       04  11 0003A        BRB     5$                                  ;
                                           54     53     A2  9A 0003C  4$:   MOVZBL  83(R2), SCOPE_LIMIT             ; 0410
                                                       50  D4 00040  5$:   CLRL    FOUND                               ; 0411
                                           53     53     A2  9A 00042        MOVZBL  83(R2), SCOPE                       ; 0412
                                           54            53  D1 00046  6$:   CMPL    SCOPE, SCOPE_LIMIT                  ; 0413
                                                       17  19 00049        BLSS    7$                                  ;
                                           17            50  E8 0004B        BLBS    FOUND, 8$                           ;
                                                    04 AE  9F 0004E        PUSHAB  OCD                                 ; 0414
                                                    68 A2  DD 00051        PUSHL   104(R2)                             ;
                                                       53  DD 00054        PUSHL   SCOPE                               ;
                                        0000G    CF        03  FB 00056    CALLS   #3, FIND_OCD                        ;
                                           E8            50  E8 0005B    BLBS    FOUND, 6$                           ;
                                                       53  D7 0005E        DECL    SCOPE                               ; 0416
                                                       E4  11 00060        BRB     6$                                  ; 0414
                                           33            50  E9 00062  7$:   BLBC    FOUND, 9$                           ; 0417
                                           53     04     AE  D0 00065  8$:   MOVL    OCD, R3                             ; 0423
                                              24  A2        53  D0 00069    MOVL    R3, 36(R2)                          ;
                                              53  A2  0B    A3  90 0006D    MOVB    11(R3), 83(R2)                      ; 0424
                                                       52  DD 00072        PUSHL   R2                                  ; 0430
                                        0000G    CF        01  FB 00074    CALLS   #1, LOG_MESSAGE                     ;
                                                       52  DD 00079        PUSHL   R2                                  ; 0431
                                        0000G    CF        01  FB 0007B    CALLS   #1, NOTIFY_LISTED_OPERATORS         ;
                                                    2E A2  B5  00080        TSTW    46(R2)                              ; 0436
                                                       13  13 00083        BEQL    9$                                  ;
                                              3C   B3        62  0E 00085    INSQUE  (R2), @60(R3)                       ; 0439
                                           50     04     AE  D0 00089        MOVL    OCD, R0                             ; 0440
                                                    3A A0  B6  0008D        INCW    58(R0)                              ;
                                           50            6E  D0 00090        MOVL    RQCB, R0                            ; 0441
```

```
                    54    A0              03  8A 00093          BICB2   #3, 84(R0)                      ; 0442
                                          04  00097          RET                                     ; 0436
                                          52  DD 00098 9$:      PUSHL   R2                              ; 0445
                  0000G   CF              01  FB 0009A          CALLS   #1, DEALLOCATE_RQCB             ;
                                          04  0009F          RET                                     ; 0447

; Routine Size:  160 bytes,    Routine Base:  $CODE$ + 0203
```

```
;  451          0448  1 GLOBAL ROUTINE REQUEST_CLM_CHECK_HANDLER (BUFFER_DESC : $ref_bblock, CLM : $ref_bblock, LEN) : NOVALUE =
;  452          0449  1
;  453          0450  1 !++
;  454          0451  1 ! Functional description:
;  455          0452  1 !
;  456          0453  1 !       This routine is the handler for all CHECK_REQUEST messages received by OPCOM from remote nodes.
;  457          0454  1 !
;  458          0455  1 !
;  459          0456  1 ! Input:
;  460          0457  1 !
;  461          0458  1 !       BUFFER_DESC -   pointer to message from remote node, including $SNDOPR header
;  462          0459  1 !       CLM -           pointer to CLMRQCB structure
;  463          0460  1 !       LEN -           length of LEN
;  464          0461  1 !
;  465          0462  1 ! Implicit Input:
;  466          0463  1 !
;  467          0464  1 !       None.
;  468          0465  1 !
;  469          0466  1 ! Output:
;  470          0467  1 !
;  471          0468  1 !       None.
;  472          0469  1 !
;  473          0470  1 ! Implict output:
;  474          0471  1 !
;  475          0472  1 !       Some accounting data will be updated
;  476          0473  1 !       to reflect the receipt of the message.
;  477          0474  1 !
;  478          0475  1 ! Side effects:
;  479          0476  1 !
;  480          0477  1 !       None.
;  481          0478  1 !
;  482          0479  1 ! Routine value:
;  483          0480  1 !
;  484          0481  1 !       None.
;  485          0482  1 !--
;  486          0483  1
;  487          0484  2 BEGIN                                           ! Start of REQUEST_CLM_CHECK_HANDLER
;  488          0485  2
;  489          0486  2 LOCAL
;  490          0487  2         RQST            : $ref_bblock,          ! RQCB data structure
;  491          0488  2         RQCB            : $ref_bblock,          ! RQCB data structure
;  492          0489  2         OCD             : $ref_bblock,          ! OCD data structure
;  493          0490  2         MCB             : $ref_bblock,          ! MCB data structure
;  494          0491  2         MSG             : $ref_bblock,          ! Pointer to user request
;  495          0492  2         RQST_COUNT      : LONG,                 ! Count of requests
;  496          0493  2         FOUND           : LONG,                 ! Boolean
;  497          0494  2         SCOPE           : LONG,                 ! Scope of request
;  498          0495  2         SCOPE_LIMIT     : LONG,                 ! Loop control
;  499          0496  2         STATUS          : LONG;
;  500          0497  2
;  501          0498  2 !
;  502          0499  2 ! Check the version number of the message.  If the message is from any other version,
;  503          0500  2 ! simply ignore it.
;  504          0501  2 !
;  505          0502  2 IF .CLM [CLM_B_DS_VERSION] NEQ CLMRQCB_K_DS_VERSION
;  506          0503  2 THEN
;  507          0504  2     RETURN DUMP_LOG_FILE (.BUFFER_DESC, %ASCID 'CLM__CHECK_REQUEST mismatch');
```

```
;  509          0505  2 !
;  509          0506  2 ! Allocate an RQCB and convert the message RQCB into the new RQCB
;  510          0507  2 !
;  511          0508  2 IF NOT CLUSMSG_CONV_CLM_RQCB (.CLM, RQCB)
;  512          0509  2 THEN
;  513          0510  2     RETURN DUMP_LOG_FILE (.BUFFER_DESC, ascid_INVALIDRQCB);
;  514          0511  2 !
;  515          0512  2 ! Find an OCD that can handle this request. The OCD is selected according to the SCOPE and UIC of the
;  516          0513  2 ! requestor.  If the SCOPE is unspecified, then look for operator coverage starting in the least
;  517          0514  2 ! privileged scope and continuing to the most privileged.  If no OCD is found, then dismiss the request.
;  518          0515  2 !
;  519          0516  3 IF (.RQCB [RQCB_B_SCOPE] EQL OPC$K_UNSPEC)
;  520          0517  2 THEN
;  521          0518  2     SCOPE_LIMIT = OPC$K_SYSTEM
;  522          0519  2 ELSE
;  523          0520  2     SCOPE_LIMIT = .RQCB [RQCB_B_SCOPE];
;  524          0521  2 FOUND = FALSE;
;  525          0522  2 SCOPE = .RQCB [RQCB_B_SCOPE];
;  526          0523  2 WHILE (.SCOPE GEQ .SCOPE_LIMIT) AND (NOT .FOUND) DO
;  527          0524  3     IF NOT (FOUND = FIND_OCD (.SCOPE, .RQCB [RQCB_L_UIC], OCD))
;  528          0525  2     THEN
;  529          0526  2         SCOPE = .SCOPE - 1;
;  530          0527  2 IF NOT .FOUND
;  531          0528  2 THEN
;  532          0529  3     BEGIN
;  533          0530  3     DEALLOCATE_RQCB (.RQCB);
;  534          0531  3     RETURN;
;  535          0532  2     END;
;  536          0533  2 RQCB [RQCB_L_OCD] = .OCD;                    ! Save OCD address
;  537          0534  2 RQCB [RQCB_B_SCOPE] = .OCD [OCD_B_SCOPE];    ! Set request scope
;  538          0535  2 !
;  539          0536  2 ! Search through the requests queued to this OCD for the specified request.  If it is already present,
;  540          0537  2 ! then free the RQCB and return.
;  541          0538  2 !
;  542          0539  2 RQST_COUNT = .OCD [OCD_W_RQSTCOUNT];     ! Get # of requests
;  543          0540  2 RQST = .OCD [OCD_L_RQSTFLINK];           ! Get first request address
;  544          0541  2 WHILE .RQST_COUNT GTR 0 DO
;  545          0542  3     BEGIN
;  546          0543  3     IF .RQCB [RQCB_L_RQSTNUM] NEQ .RQST [RQCB_L_RQSTNUM]
;  547          0544  3     THEN
;  548          0545  4         BEGIN
;  549          0546  4         RQST_COUNT = .RQST_COUNT - 1;    ! Decrement request count
;  550          0547  4         RQST = .RQST [RQCB_L_FLINK];     ! Get address of next request RQCB
;  551          0548  4         END
;  552          0549  3     ELSE
;  553          0550  4         BEGIN
;  554          0551  4         DEALLOCATE_RQCB (.RQCB);
;  555          0552  4         RETURN;
;  556          0553  3         END;
;  557          0554  2     END;
;  558          0555  2 !
;  559          0556  2 ! Tell the world about the request, first to the log file, then to the operators.  We
;  560          0557  2 ! know that an operator was notified, otherwise the remote node would not have sent the
;  561          0558  2 ! message.
;  562          0559  2 !
;  563          0560  2 LOG_MESSAGE (.RQCB);
;  564          0561  2 NOTIFY_LISTED_OPERATORS (.RQCB);
```

```
;  565          0562  2 !
;  566          0563  2 ! Everything looks good, add it to the list
;  567          0564  2 !
;  568          0565  2 INSQUE (.RQCB, .OCD [OCD_L_RQSTFLINK]);
;  569          0566  2 OCD [OCD_W_RQSTCOUNT] = .OCD [OCD_W_RQSTCOUNT] + 1;
;  570          0567  2
;  571          0568  1 END;                                    ! End of REQUEST_CLM_CHECK_HANDLER


                                                        .PSECT  $PLIT$,NOWRT,NOEXE,2

55 51 45 52 5F 4B 43 45 48 43 5F 5F 4D 4C 43  00020 P.AAD:  .ASCII  \CLM__CHECK_REQUEST mismatch\<0>                ;
      00 68 63 74 61 6D 73 69 6D 20 54 53 45  0002F                                                             ;
                                              010E001B  0003C P.AAC:  .LONG   17694747                           ;
                                              00000000'  00040        .ADDRESS P.AAD                             ;


                                                        .PSECT  $CODE$,NOWRT,2

                                                 003C  00000        .ENTRY  REQUEST_CLM_CHECK_HANDLER, Save R2,R3,R4,R5 ; 0448
                                          5E          08  C2  00002        SUBL2   #8, SP                          ;
                                          52      08  AC  D0  00005        MOVL    CLM, R2                         ; 0502
                                          02      02  A2  91  00009        CMPB    2(R2), #2                       ;
                                                      06  13  0000D        BEQL    1$                              ;
                                                0000' CF  9F  0000F        PUSHAB  P.AAC                           ; 0504
                                                      10  11  00013        BRB     2$                              ;
                                                4004  8F  BB  00015  1$:   PUSHR   #^M<R2,SP>                     ; 0508
                                    0000G     CF          02  FB  00019        CALLS   #2, CLUSMSG_CONV_CLM_RQCB       ;
                                              0D          50  E8  0001E        BLBS    R0, 3$                          ;
                                                    0000G CF  9F  00021        PUSHAB  ASCID_INVALIDRQCB               ; 0510
                                                      04  AC  DD  00025  2$:   PUSHL   BUFFER_DESC                   ;
                                    0000G     CF          02  FB  00028        CALLS   #2, DUMP_LOG_FILE               ;
                                                          04  0002D        RET                                     ;
                                              53          6E  D0  0002E  3$:   MOVL    RQCB, R3                        ; 0516
                                              04      53  A3  91  00031        CMPB    83(R3), #4                      ;
                                                          05  12  00035        BNEQ    4$                              ;
                                              54          01  D0  00037        MOVL    #1, SCOPE_LIMIT                 ; 0518
                                                          04  11  0003A        BRB     5$                              ;
                                              54      53  A3  9A  0003C  4$:   MOVZBL  83(R3), SCOPE_LIMIT            ; 0520
                                                          50  D4  00040  5$:   CLRL    FOUND                           ; 0521
                                              52      53  A3  9A  00042        MOVZBL  83(R3), SCOPE                   ; 0522
                                              54          52  D1  00046  6$:   CMPL    SCOPE, SCOPE_LIMIT              ; 0523
                                                          17  19  00049        BLSS    7$                              ;
                                              17          50  E8  0004B        BLBS    FOUND, 8$                       ;
                                                      04  AE  9F  0004E        PUSHAB  OCD                             ; 0524
                                                      68  A3  DD  00051        PUSHL   104(R3)                         ;
                                                          52  DD  00054        PUSHL   SCOPE                           ;
                                    0000G     CF          03  FB  00056        CALLS   #3, FIND_OCD                    ;
                                              E8          50  E8  0005B        BLBS    FOUND, 6$                       ;
                                                          52  D7  0005E        DECL    SCOPE                           ; 0526
                                                          E4  11  00060        BRB     6$                              ; 0524
                                              27          50  E9  00062  7$:   BLBC    FOUND, 10$                      ; 0527
                                              52      04  AE  D0  00065  8$:   MOVL    OCD, R2                         ; 0533
                                        24    A3          52  D0  00069        MOVL    R2, 36(R3)                      ;
                                        53    A3      0B  A2  90  0006D        MOVB    11(R2), 83(R3)                  ; 0534
```

```
                55        3A    A2  3C 00072          MOVZWL  58(R2), RQST_COUNT                ; 0539
                54        3C    A2  D0 00076          MOVL    60(R2), RQST                     ; 0540
                                  55  D5 0007A 9$:      TSTL    RQST_COUNT                       ; 0541
                                  16  15 0007C          BLEQ    11$                              ;
              70  A4              70  A3  D1 0007E          CMPL    112(R3), 112(RQST)           ; 0543
                                  07  13 00083          BEQL    10$                              ;
                                  55  D7 00085          DECL    RQST_COUNT                       ; 0546
                54                64  D0 00087          MOVL    (RQST), RQST                     ; 0547
                                  EE  11 0008A          BRB     9$                               ; 0543
                                  53  DD 0008C 10$:     PUSHL   R3                               ; 0551
          0000G CF                01  FB 0008E          CALLS   #1, DEALLOCATE_RQCB              ;
                                  04  00093          RET                                      ; 0550
                                  53  DD 00094 11$:     PUSHL   R3                               ; 0560
          0000G CF                01  FB 00096          CALLS   #1, LOG_MESSAGE                  ;
                                  53  DD 0009B          PUSHL   R3                               ; 0561
          0000G CF                01  FB 0009D          CALLS   #1, NOTIFY_LISTED_OPERATORS      ;
            3C  B2                63  0E 000A2          INSQUE  (R3), @60(R2)                    ; 0565
                50        04      AE  D0 000A6          MOVL    04(R0), R0                       ; 0566
                          3A      A0  B6 000AA          INCW    58(R0)                           ;
                                  04  000AD          RET                                      ; 0568

; Routine Size:  174 bytes,    Routine Base:  $CODE$ + 02A3
```

```
;  573          0569  1 END
;  574          0570  0 ELUDOM                    ! End of OPCOMRQST
```

```
;                                  PSECT SUMMARY

;       Name                    Bytes                           Attributes

;  $CODE$                         849  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $PLIT$                          68  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)


;                               Library Statistics

;                                        --------  Symbols  --------      Pages       Processing
;       File                             Total     Loaded   Percent       Mapped      Time

;  _$255$DUA28:[SYSLIB]LIB.L32;1          18619         13         0         1000        00:01.9
;  _$255$DUA28:[OPCOM.OBJ]OPCOMLIB.L32;1    633         32         5           43        00:00.9
```

```
;                                  COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:OPCOMRQST/OBJ=OBJ$:OPCOMRQST MSRC$:OPCOMRQST/UPDATE=(ENH$:OPCOMRQST)

; Size:          849 code + 68 data bytes
; Run Time:          00:20.1
; Elapsed Time:      00:54.7
; Lines/CPU Min:      1703
; Lexemes/CPU-Min:  16488
; Memory Used:   183 pages
; Compilation Complete
```

LOGFILE
LIS

OPCOMDEF
LIS

OPCOMDATA
LIS

OPCOMINI
LIS

OPCOMUTIL
LIS

OPCOMLIB
LIS

OPCDEFTMP
LIS

OPCOMMAIN
LIS

OPCOMOLD
LIS

OPCOMRPLY
LIS

OPCCRASH
LIS

OPERUTIL
LIS

OPCOMROST
LIS