


```

MM      MM      000000      MM      MM      DDDDDDDD      AAAAAA      TTTTTTTTTT
MM      MM      000000      MM      MM      DDDDDDDD      AAAAAA      TTTTTTTTTT
MMMM    MMMM    00          00    MMMM    MMMM    DD          DD      AA          AA      TT
MMMM    MMMM    00          00    MMMM    MMMM    DD          DD      AA          AA      TT
MM  MM  MM      00          00    MM  MM  MM      DD          DD      AA          AA      TT
MM  MM  MM      00          00    MM  MM  MM      DD          DD      AA          AA      TT
MM      MM      00          00    MM      MM      DD          DD      AA          AA      TT
MM      MM      00          00    MM      MM      DD          DD      AA          AA      TT
MM      MM      00          00    MM      MM      DD          DD      AA          AA      TT
MM      MM      00          00    MM      MM      DD          DD      AA          AA      TT
MM      MM      00          00    MM      MM      DD          DD      AA          AA      TT
MM      MM      00          00    MM      MM      DD          DD      AA          AA      TT
MM      MM      00          00    MM      MM      DD          DD      AA          AA      TT
MM      MM      000000      MM      MM      DDDDDDDD      AA          AA      TT
MM      MM      000000      MM      MM      DDDDDDDD      AA          AA      TT

```

```

LL      111111      SSSSSSSS
LL      111111      SSSSSSSS
LL      11          SS
LL      11          SS
LL      11          SS
LL      11          SS
LL      11          SSSSSS
LL      11          SSSSSS
LL      11          SS
LL      11          SS
LL      11          SS
LL      11          SS
LLLLLLLLLLLL 111111  SSSSSSSS
LLLLLLLLLLLL 111111  SSSSSSSS

```

```
1 0001 0 MODULE MOMDAT (IDENT = 'V04-000') =
2 0002 1 BEGIN
3 0003 1
4 0004 1 *****
5 0005 1 *
6 0006 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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8 0008 1 * ALL RIGHTS RESERVED.
9 0009 1 *
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23 0023 1 *
24 0024 1 *
25 0025 1 *****
26 0026 1
27 0027 1
28 0028 1 **
29 0029 1 FACILITY: DECnet-VAX Network Maintenance Operations Module
30 0030 1
31 0031 1
32 0032 1 ABSTRACT:
33 0033 1 This module contains all global data referenced by the
34 0034 1 Maintenance Operations Module (MOM).
35 0035 1
36 0036 1 ENVIRONMENT: VAX/VMS Operating System
37 0037 1
38 0038 1 AUTHOR: Kathy Perko
39 0039 1
40 0040 1 CREATION DATE: 17-Dec-1982
41 0041 1
42 0042 1 MODIFIED BY:
43 0043 1 V03-004 MKP0004 Kathy Perko 21-July-1984
44 0044 1 Use MOMSK_MAX MOP_MSG_LEN instead of literals in descriptors.
45 0045 1 This falls out as part of fix for LOOP CIRC on point-to-point
46 0046 1 lines.
47 0047 1
48 0048 1 V03-003 MKP0003 Kathy Perko 20-May-1984
49 0049 1 Add QNA device to table used to construct secondary and
50 0050 1 tertiary load file names which are not supplied in the node
51 0051 1 database.
52 0052 1
53 0053 1 V03-002 MKP0002 Kathy Perko 11-April-1984
54 0054 1 Add buffer for Network Management version checking.
55 0055 1
56 0056 1 V03-001 MKP0001 Kathy Perko 20-Jan-1984
57 0057 1 Add SERVICE NODE VERSION parameter.
```

MOMDAT
V04-000

~~10~~¹¹-~~sep~~^{sep}-1984 02:01:30
~~14~~¹⁴-~~sep~~^{sep}-1984 12:44:30

VAX-11 Bliss-32 V4.0-742 Page 2
DISK\$VMSMASTER:[MOM.SRC]MOMDAT.B32;1 (1)

MOI
VOI

: 58
: 59

0058 1 !
0059 1 !--

Global data declarations

```
.. 61 0060 1 %SBTTL 'Global data declarations'
.. 62 0061 1
.. 63 0062 1
.. 64 0063 1 : INCLUDE FILES:
.. 65 0064 1
.. 66 0065 1
.. 67 0066 1 LIBRARY 'LIBS:MOMLIB.L32';
.. 68 0067 1 LIBRARY 'SHRLIBS:NMALIBRY.L32';
.. 69 0068 1 LIBRARY 'SHRLIBS:NET.L32';
.. 70 0069 1 LIBRARY 'SYSS$LIBRARY:STARLET.L32';
.. 71 0070 1
.. 72 0071 1 PSECT GLOBAL = $GLOBALS;
.. 73 0072 1
.. 74 0073 1
.. 75 0074 1 : OWN STORAGE:
.. 76 0075 1
.. 77 0076 1 GLOBAL
.. 78 0077 1     MOMSGO_PROPRVMSK : BBLOCK [8],           ! Process privilege mask
.. 79 0078 1     MOMSGW_ACP_CHAN;                   ! ACP control channel
.. 80 0079 1
.. 81 0080 1
.. 82 0081 1 : Debugging log mask. The bit mask is set up at service initialization
.. 83 0082 1 : by translating the logical name MOM$LOG. The resulting ASCII hex number
.. 84 0083 1 : is converted to binary to provide the appropriate mask bit settings.
.. 85 0084 1
.. 86 0085 1 : The values for MOM$LOG are defined as follows:
.. 87 0086 1
.. 88 0087 1     1 NICE message network I/O.
.. 89 0088 1     4 NPARSE state transitions.
.. 90 0089 1     8 Test (node loopback) message network I/O.
.. 91 0090 1     10 Volatile data base I/O (NETACP QIOs).
.. 92 0091 1     20 MOP direct line I/O.
.. 93 0092 1     40 Trace service operation.
.. 94 0093 1     80 Raw event data.
.. 95 0094 1
.. 96 0095 1 GLOBAL
.. 97 0096 1     MOM$GL_LOGMASK : BLOCK [1] INITIAL (0); ! Internal logging mask
.. 98 0097 1
.. 99 0098 1
```

Data for service operations

```
101 0099 1 %SBTTL 'Data for service operations'
102 0100 1
103 0101 1 The following data is used to store information needed for maintenance
104 0102 1 operations such as LOAD, DUMP, TRIGGER, and line loop.
105 0103 1
106 0104 1
107 0105 1 GLOBAL BIND
108 0106 1
109 0107 1 Network device name - used to assign a channel to NETACP for getting
110 0108 1 information from the volatile database.
111 0109 1
112 0110 1 MOMSGQ_NETNAMDSC = $ASCID ('_NET:'),
113 0111 1
114 0112 1 Service device name - used to assign a channel to the device. QIOs to
115 0113 1 this device will send MOP messages to the target node and receive the
116 0114 1 response MOP messages.
117 0115 1
118 0116 1 MOMSGQ_DLE_NAMDSC = $ASCID ('_ND:'),
119 0117 1
120 0118 1 PSI device name - used to assign a channel to PSI for issuing loop
121 0119 1 line QIOs.
122 0120 1
123 0121 1 MOMSGQ_PSINAMDSC = $ASCID ('_NW:');
124 0122 1
125 0123 1
126 0124 1 The following fields are used for parsing NICE commands requesting
127 0125 1 service operations.
128 0126 1
129 0127 1 GLOBAL
130 0128 1 MOMSGL_SVD_INDEX, ! Index for parameter's entry in the
131 0129 1 ! Service Data Table.
132 0130 1 MOMSGB_FUNCTION: BYTE, ! NICE message function code.
133 0131 1 MOMSGB_OPTION_BYTE: BYTE; ! NICE message option byte.
134 0132 1
135 0133 1
136 0134 1 NPARSE argument block - this block is used during parsing of NICE messages
137 0135 1 to keep track of how far into the message the parsing is, and the value and
138 0136 1 length of the field currently being parsed.
139 0137 1
140 0138 1 GLOBAL
141 0139 1 MOM$AB_NPARSE_BLK: $NPA_BLKDEF;
142 0140 1
143 0141 1 GLOBAL
144 0142 1
145 0143 1 The maintenance entity code can be any one of the following values:
146 0144 1
147 0145 1 MOMSC_LINE
148 0146 1 MOMSC_CIRCUIT
149 0147 1 MOMSC_NODE
150 0148 1 MOMSC_NODEBYNAME
151 0149 1
152 0150 1 MOMSGB_ENTITY_CODE : BYTE, ! Maintenance entity code (key)
153 0151 1
154 0152 1 The entity id string is the data used as the key into the volatile data
155 0153 1 base to get information for the maintenance operation. The contents of the
156 0154 1 buffer are determined by the value of the entity id code.
157 0155 1
```

Data for service operations

```
158 0156 1 : MOMSC_LINE          contains line name.
159 0157 1 : MOMSC_CIRCUIT        contains circuit name.
160 0158 1 : MOMSC_NODE          contains node address (always a word).
161 0159 1 : MOMSC_NODEBYNAME    contains node name.
162 0160 1 :
163 0161 1 : MOM$AB_ENTITY_BUF   : BBLOCK [32], ! Entity id string buffer
164 0162 1 :
165 0163 1 : The service id descriptor describes the extent of the entity id in
166 0164 1 : the service id buffer.
167 0165 1 :
168 0166 1 : MOM$GQ_ENTITY_BUF_DSC : VECTOR [2] ! Maintenance id descriptor
169 0167 1 : INITIAL (0, MOM$AB_ENTITY_BUF);
170 0168 1 :
171 0169 1 :
172 0170 1 : Service flags. These flags are set to indicate various options in
173 0171 1 : use by the current service operation. The options bits are described
174 0172 1 : in MOMDEF.MDL.
175 0173 1 :
176 0174 1 : GLOBAL
177 0175 1 : MOM$GL_SERVICE_FLAGS;
178 0176 1 :
179 0177 1 :
180 0178 1 : For autoservice functions, MOM logs events to indicate the status
181 0179 1 : of the operation. This serves the same function as the NICE response
182 0180 1 : message for operator service functions. The event to logged is kept
183 0181 1 : in the following fields, and when completion (successful or not) is
184 0182 1 : signalled, the event is logged by the condition handler.
185 0183 1 :
186 0184 1 : Three different events can be logged:
187 0185 1 :
188 0186 1 : Automatic line service          0.3
189 0187 1 : Aborted service request         0.7
190 0188 1 : Passive loopback                0.6
191 0189 1 :
192 0190 1 : GLOBAL
193 0191 1 : MOM$GB_EVT_POPR : BYTE,          ! Passive loopback operation code
194 0192 1 : MOM$GB_EVT_PRSN : BYTE,          ! Aborted service request reason code
195 0193 1 : MOM$GB_EVT_PSER : BYTE,          ! Automatic line service request code
196 0194 1 : MOM$GW_EVT_CODE : WORD;          ! Event code
197 0195 1 :
198 0196 1 :
```

```

200 0197 1 : *****
201 0198 1 :   Buffers for communicating with other components of DECnet:
202 0199 1 :     NICE message buffers
203 0200 1 :     MOP message buffers
204 0201 1 :     NETACP QIO buffers
205 0202 1 : *****
206 0203 1 :
207 0204 1 :
208 0205 1 :   Network I/O buffers used for sending and receiving NICE messages from
209 0206 1 :   NCP via the Network Management Listener (NML).
210 0207 1 :
211 0208 1 : GLOBAL LITERAL
212 0209 1 :   MOM$K_NML_MBX_BUF_LEN = MOM$K_NICE_BUF_LEN + 3;
213 0210 1 :
214 0211 1 : GLOBAL
215 0212 1 :   MOM$AB_NML_MAILBOX_BUFFER: BBLOCK [MOM$K_NML_MBX_BUF_LEN];
216 0213 1 : GLOBAL BIND
217 0214 1 :   MOM$AB_NCP_VERSION = MOM$AB_NML_MAILBOX_BUFFER : BBLOCK [3],
218 0215 1 :   MOM$AB_NICE_RCV_BUF = MOM$AB_NML_MAILBOX_BUFFER + 3 :
219 0216 1 :   BBLOCK [MOM$K_NICE_BUF_LEN];
220 0217 1 : GLOBAL
221 0218 1 :   MOM$GL_NICE_RCV_MSG_LEN,
222 0219 1 :   MOM$AB_NICE_XMIT_BUF:BBLOCK [MOM$K_NICE_BUF_LEN];
223 0220 1 :
224 0221 1 : GLOBAL BIND
225 0222 1 :   MOM$GQ_NICE_RCV_BUF_DSC =
226 0223 1 :   UP[IT (MOM$K_NICE_BUF_LEN, MOM$AB_NICE_RCV_BUF),
227 0224 1 :   MOM$GQ_NICE_XMIT_BUF_DSC =
228 0225 1 :   UP[IT (MOM$K_NICE_BUF_LEN, MOM$AB_NICE_XMIT_BUF);
229 0226 1 :
230 0227 1 :
231 0228 1 :   P4 QIO buffer used to get the target's service parameters from NETACPs
232 0229 1 :   volatile database. NETACP returns the parameters in this buffer.
233 0230 1 :
234 0231 1 : GLOBAL
235 0232 1 :   MOM$AB_ACPQIO_BUFFER: BBLOCK [MOM$K_QIO_BUF_LEN];
236 0233 1 : GLOBAL BIND
237 0234 1 :   MOM$GQ_ACPQIO_BUF_DSC =
238 0235 1 :   UP[IT (MOM$K_QIO_BUF_LEN, MOM$AB_ACPQIO_BUFFER);
239 0236 1 :
240 0237 1 :
241 0238 1 :
242 0239 1 :   MOP I/O Channel Information Blocks (CIBs), buffers, and descriptors.
243 0240 1 :
244 0241 1 : GLOBAL
245 0242 1 :   MOM$GQ_TIMEOUT: VECTOR [2] ! Timer set on all MOP QIOs
246 0243 1 :   INITIAL (0, -1), ! to target (delta).
247 0244 1 :   MOM$AB_CIB : BBLOCK [CIB$C_CIBLEN],
248 0245 1 :   MOM$AB_LOOP_CIB : BBLOCK [CIB$C_CIBLEN];
249 0246 1 :
250 0247 1 : GLOBAL BIND
251 0248 1 :   MOM$AB_TRIGGER_CIB = MOM$AB_LOOP_CIB : BBLOCK;
252 0249 1 :
253 0250 1 : GLOBAL
254 0251 1 :   MOM$AB_MOP_XMIT_BUF : BBLOCK [MOM$K_MAX_MOP_MSG_LEN], ! Transmit buffer
255 0252 1 :   MOM$AB_MOP_RCV_BUF : BBLOCK [MOM$K_MAX_MOP_MSG_LEN], ! Receive buffer
256 0253 1 :   MOM$AB_MOP_MSG : BBLOCK [MOM$K_MAX_MOP_MSG_LEN], ! Received MOP

```



```

: 257 0254 1
: 258 0255 1 MOM$GQ_MOP_MSG_DSC : VECTOR [2]; ! message buffer.
: 259 0256 1 ! Received MOP message descriptor.
: 260 0257 1 GLOBAL BIND
: 261 0258 1 MOM$GQ_MOP_XMIT_BUF_DSC =
: 262 0259 1 UPLIT (MOM$K_MAX_MOP_MSG_LEN, MOM$AB_MOP_XMIT_BUF)
: 263 0260 1 : VECTOR [2];
: 264 0261 1 MOM$GQ_MOP_RCV_BUF_DSC =
: 265 0262 1 UPLIT (MOM$K_MAX_MOP_MSG_LEN, MOM$AB_MOP_RCV_BUF)
: 266 0263 1 : VECTOR [2];
: 267 0264 1
: 268 0265 1 !
: 269 0266 1 ! The following structure is used for accumulating the information
: 270 0267 1 ! to be put into the NICE response message returned to NCP.
: 271 0268 1 ! MOM$BLD_REPLY is called with this block as input. MOM$BLD_REPLY
: 272 0269 1 ! then constructs the response message.
: 273 0270 1 !
: 274 0271 1 GLOBAL
: 275 0272 1 MOM$AB_MSGBLOCK .BBLOCK [MSB$K_LENGTH];

```

Data for service operations

```

277 0273 1 *****
278 0274 1
279 0275 1 Service Data Table
280 0276 1 For any MOP maintenance operation, certain node and circuit
281 0277 1 parameters are need. These parameters are retrieved from the
282 0278 1 volatile database saved in this table. Then, if there is a NICE
283 0279 1 command, any parameters specified there overwrite the ones from the
284 0280 1 volatile database. These parameters are then used to perform the
285 0281 1 requested service function.
286 0282 1
287 0283 1 Each parameter's entry in the Service Data Table contains the following
288 0284 1 information:
289 0285 1   SDV$L_NFB_ID - The NFB field ID (used to identify the parameter to
290 0286 1   NETACP).
291 0287 1   SDV$W_NICE_ID - The NICE parameter ID (used to identify the parameter
292 0288 1   in the command from NCP).
293 0289 1   SDV$B_NICE_TYPE - The parameter's type (byte, word, longword, or
294 0290 1   string) in the NICE message.
295 0291 1   SDV$B_FLAGS - There's only one flag, SDV$M_MSG_PARAM, which is set
296 0292 1   if the parameter value in this entry was obtained from
297 0293 1   the NICE or MOP message specifying parameters for the
298 0294 1   current operation.
299 0295 1   SDV$B_STRING_LEN - Byte length of the parameter if it's a string.
300 0296 1   SDV$L_PARAM - The parameter value.
301 0297 1   SDV$T_STRING - The string.
302 0298 1 -----
303 0299 1
304 0300 1
305 0301 1 Macro to generate an entry for a parameter in the Service Data Table.
306 0302 1
307 0303 1 MACRO SERVICE_TAB (ENTITY) [PARAM_ID, NFB_DATABASE, PARAM_TYPE] =
308 M 0304 1 [SVD_INDEX, SDV$L_NFB_ID] =
309 M 0305 1   %IF %NULL (NFB_DATABASE)
310 M 0306 1   %THEN 0
311 M 0307 1   %ELSE %NAME ('NFB$C_', NFB_DATABASE, '_', PARAM_ID)
312 M 0308 1   %FI
313 M 0309 1 [SVD_INDEX, SDV$W_NICE_ID] = %NAME ('NMASC_', ENTITY, '_', PARAM_ID),
314 M 0310 1 [SVD_INDEX, SDV$B_NICE_TYPE] = %NAME ('SVD$K_', PARAM_TYPE)
315 M 0311 1
316 M 0312 1 %ASSIGN (SVD_INDEX, SVD_INDEX+1)
317 M 0313 1
318 M 0314 1 %:
319 M 0315 1
320 M 0316 1
321 M 0317 1
322 M 0318 1
323 M 0319 1 Generate the Service Data Table indices used by the NPARSE tables.
324 M 0320 1
325 M 0321 1 MACRO SVD_INDEX_GEN (ENTITY) [PARAM_ID, NFB_DATABASE, PARAM_TYPE] =
326 M 0322 1
327 M 0323 1 GLOBAL LITERAL
328 M 0324 1 %NAME ('SVD$GK_', ENTITY, '_', PARAM_ID) = SVD_INDEX;
329 M 0325 1 %ASSIGN (SVD_INDEX, SVD_INDEX+1)
330 M 0326 1
331 M 0327 1 %:
332 M 0328 1
333 M 0329 1 COMPILETIME

```

Data for service operations

```

334 0330 1 SVD_INDEX = 0;
335 0331 1
336 0332 1
337 0333 1
338 0334 1
339 0335 1 Some of the entries in the Service Data table do not have convenient entries
340 0336 1 in the volatile database or in the NICE protocol. They are useful pieces of
341 0337 1 information to keep around during the maintenance operation. So pseudo
342 0338 1 names are used for their entries in the SVD.
343 0339 1
344 0340 1 The values all have bit 15 set, indicating a counter value, to avoid
345 0341 1 conflicts with other network management parameter codes.
346 0342 1 GLOBAL LITERAL
347 0343 1 NMASC_PCNO_$HNA = 1 ^ 15 OR 0, Host node name
348 0344 1 NMASC_PCNO_$FTY = 1 ^ 14 OR 0, Load file type (operating system
349 0345 1 or diagnostics).
350 0346 1 NMASC_PCNO_$HHW = 1 ^ 13 OR 0, NI Hardware address from volatile
351 0347 1 database, used for loop circuit
352 0348 1 commands
353 0349 1 NMASC_PCNO_$LNA = 1 ^ 12 OR 0, Loop circuit node name.
354 0350 1 NMASC_PCNO_$LNH = 1 ^ 11 OR 0, Loop circuit node hardware address.
355 0351 1 NMASC_PCNO_$LNN = 1 ^ 10 OR 0, Loop circuit assistant node name.
356 0352 1 NMASC_PCNO_$LAH = 1 ^ 9 OR 0, Loop circuit assistant node hardware
357 0353 1 address.
358 0354 1 NMASC_PCNO_$DA = 1 ^ 8 OR 0; Destination Address on MOP message
359 0355 1 initiating an autoservice function.
360 0356 1
361 0357 1
362 M 0358 1 MACRO NDI_SERVICE_DATA =
363 M 0359 1
364 M 0360 1
365 M 0361 1
366 M 0362 1
367 M 0363 1
368 M 0364 1
369 M 0365 1
370 M 0366 1
371 M 0367 1
372 M 0368 1
373 M 0369 1
374 M 0370 1
375 M 0371 1
376 M 0372 1
377 M 0373 1
378 M 0374 1
379 M 0375 1
380 M 0376 1
381 M 0377 1
382 M 0378 1
383 M 0379 1
384 M 0380 1
385 M 0381 1
386 M 0382 1
387 M 0383 1
388 M 0384 1
389 M 0385 1
390 M 0386 1

```

Param ID	NFB Database	Param type	
ADD.	NDI.	WORD.	Target's node address
SDV.	NDI.	BYTE.	Service device type
CPU.	NDI.	BYTE.	Target's CPU type
STY.	NDI.	BYTE.	Software type to start load with
DAD.	NDI.	LONG.	Address to start dump from
DCT.	NDI.	LONG.	Dump byte count
IHO.	NDI.	WORD.	Host node address
NNA.	NDI.	STRING.	Target's node name
SLI.	NDI.	STRING.	Service circuit ID
SPA.	NDI.	STRING.	Service password
HWA.	NDI.	STRING.	NI hardware address
SNV.	NDI.	BYTE.	Target's service node version
LOA.	NDI.	STRING.	Load file ID
SLO.	NDI.	STRING.	Secondary loader file ID
TLO.	NDI.	STRING.	Tertiary loader file ID
DFL.	NDI.	STRING.	Diagnostics file ID
SID.	NDI.	STRING.	Software ID
DUM.	NDI.	STRING.	Dump file ID
SDU.	NDI.	STRING.	Secondary dump file ID
\$HNA.	.	STRING.	Host node name
\$HHW.	.	STRING.	Host NI hardware address
\$FTY.	.	BYTE.	Load file type (Operating system or diagnostics).
PHA.	.	STRING.	Physical address (from NICE command or

Data for service operations

```

391 M 0387 1
392 M 0388 1
393 M 0389 1
394 M 0390 1
395 M 0391 1
396 M 0392 1
397 M 0393 1
398 M 0394 1
399 M 0395 1
400 M 0396 1
401 M 0397 1
402 M 0398 1
403 M 0399 1
404 M 0400 1
405 M 0401 1
406 M 0402 1
407 M 0403 1
408 M 0404 1
409 M 0405 1
410 M 0406 1
411 M 0407 1
412 M 0408 1
413 M 0409 1
414 M 0410 1
415 M 0411 1
416 M 0412 1
417 M 0413 1
418 M 0414 1
419 M 0415 1
420 M 0416 1
421 M 0417 1
422 M 0418 1
423 M 0419 1
424 M 0420 1
425 M 0421 1
426 M 0422 1
427 M 0423 1
428 M 0424 1
429 M 0425 1
430 M 0426 1
431 M 0427 1
432 M 0428 1
433 M 0429 1
434 M 0430 1
435 M 0431 1
436 M 0432 1
437 M 0433 1
438 M 0434 1
439 M 0435 1
440 M 0436 1

```

SDA, . STRING, NI header).
Destination address of MOP message
which initiated autoservice on
the NI.

LPC, LNI, WORD, Loop count
LPL, LNI, WORD, Loop length
LPD, LNI, BYTE, Loop data type
LPH, LNI, BYTE, Loop help type (xmit, rcv, or full)
LPA, . STRING, Loop assist NI address
LPN, . WORD, Loop circuit node address.
\$LNA, . STRING, Loop circuit node name.
\$LNH, . STRING, Loop circuit node hardware address.
LAN, . WORD, Loop circuit assistant node address.
\$LNN, . STRING, Loop circuit assistant node name.
\$LAH, . STRING, Loop circuit assistant node hardware
address.

%.

PLI_SERVICE_DATA =

Param ID	NFB Database	Param type
STI,	PLI,	WORD,

! Line service timer

%;

Generate the Service Data Table entry count and the indices for each
parameter.

SVD_INDEX_GEN (PCNO, NDI_SERVICE_DATA);
SVD_INDEX_GEN (PCLI, PLI_SERVICE_DATA);

GLOBAL LITERAL
SVD\$C_ENTRY_COUNT = SVD_INDEX;

%ASSIGN (SVD_INDEX, 0)

Generate the Service Data Table.

GLOBAL
MOM\$AB_SERVICE_DATA: BBLOCKVECTOR [SVD\$C_ENTRY_COUNT, SVD\$C_ENTRY_LEN]
PRESET (SERVICE_TAB (PCNO, NDI_SERVICE_DATA),
SERVICE_TAB (PCLI, PLI_SERVICE_DATA));

MOP Device Table

```

442 0437 1 %SBTTL 'MOP Device Table'
443 0438 1
444 0439 1 : MOP device table symbol and macro definitions.
445 0440 1
446 0441 1 MACRO
447 M 0442 1     $MOPDEV (SYM, NAM) =
448 M 0443 1     SWITCHES UNAMES:
449 M 0444 1     PSECT OWN = MOM$MOPDEVNAMES;
450 M 0445 1     OWN
451 M 0446 1     STR : VECTOR [%CHARCOUNT (%ASCIC NAM), BYTE]
452 M 0447 1     INITIAL (BYTE (%ASCIC NAM))
453 M 0448 1     ALIGN (0);
454 M 0449 1     PSECT OWN = MOM$MOPDEVTABLE;
455 M 0450 1     OWN
456 M 0451 1     IND : VECTOR [MDT$K_ENTRYLEN, BYTE]
457 M 0452 1     INITIAL (BYTE (SYM), LONG (STR))
458 M 0453 1     ALIGN (0);
459 M 0454 1     UNDECLARE STR, IND;
460 M 0455 1     SWITCHES NOUNAMES;
461 M 0456 1     %ASSIGN (MOPDEVcnt, MOPDEVcnt + 1);
462 M 0457 1     PSECT OWN = $OWNS;
463 0458 1     %;
464 0459 1
465 0460 1 : Initialize MOP device table and psects.
466 0461 1
467 0462 1 PSECT
468 0463 1     GLOBAL = MOM$MOPDEVTABLE (NOWRITE, ALIGN (0));
469 0464 1
470 0465 1 GLOBAL
471 0466 1     MOM$AB_MOPDEVICES : BBLOCKVECTOR [0, MDT$K_ENTRYLEN];
472 0467 1
473 0468 1 PSECT
474 0469 1     GLOBAL = MOM$MOPDEVNAMES (NOWRITE, ALIGN (0));
475 0470 1
476 0471 1 GLOBAL
477 0472 1     MOM$AB_MOPDEVNAMES : VECTOR [0, BYTE];
478 0473 1
479 0474 1 PSECT
480 0475 1     GLOBAL = $GLOBALS;
481 0476 1
482 0477 1 COMPILETIME
483 0478 1     MOPDEVcnt = 0;
484 0479 1
485 0480 1 : This table contains the ASCII device name strings associated with a
486 0481 1 : given MOP device code.
487 0482 1
488 0483 1 $MOPDEV (NMASC_SOFD_DMC, 'DMC');
489 0484 1 $MOPDEV (NMASC_SOFD_UNA, 'UNA');
490 0485 1 $MOPDEV (NMASC_SOFD_QNA, 'QNA');
491 0486 1 $MOPDEV (NMASC_SOFD_DUP, 'DUP');
492 0487 1 $MOPDEV (NMASC_SOFD_DU, 'DU');
493 0488 1 $MOPDEV (NMASC_SOFD_DP, 'DP');
494 0489 1 $MOPDEV (NMASC_SOFD_DQ, 'DQ');
495 0490 1 $MOPDEV (NMASC_SOFD_DL, 'DL');
496 0491 1 $MOPDEV (NMASC_SOFD_DA, 'DA');
497 0492 1 $MOPDEV (NMASC_SOFD_DTE, 'DTE');
498 0493 1 $MOPDEV (NMASC_SOFD_KLB, 'KL');

```

MOP Device Table

```

: 499 0494 1 $MOPDEV (NMASC_SOFD_DMP, 'DMP');
: 500 0495 1 $MOPDEV (NMASC_SOFD_DMV, 'DMV');
: 501 0496 1 $MOPDEV (NMASC_SOFD_DPV, 'DPV');
: 502 0497 1 $MOPDEV (NMASC_SOFD_DMF, 'DMF');
: 503 0498 1
: 504 0499 1
: 505 0500 1 GLOBAL LITERAL
: 506 0501 1 MDT$GK_MOPDEVcnt = MOPDEVcnt;
: 507 0502 1
: 508 0503 1 !
: 509 0504 1 ! Clean up.
: 510 0505 1 !
: 511 0506 1 UNDECLARE
: 512 0507 1 %QUOTE $MOPDEV:
: 513 0508 1
: 514 0509 1 END
: 515 0510 1
: 516 0511 0 ELUDOM

```

! End of module

```

.TITLE MOMDAT
.IDENT \V04-000\
.PSECT MOM$MOPDEVNAMES, NOWRT, NOEXE, 0

```

```

00000 MOM$AB_MOPDEVNAMES::
      .BLKB 0
43 4D 44 03 00000 ;STR
      U.1: .ASCII <3>\DMC\
41 4E 55 03 00004 ;STR
      U.3: .ASCII <3>\UNA\
41 4E 51 03 00008 ;STR
      U.5: .ASCII <3>\QNA\
50 55 44 03 0000C ;STR
      U.7: .ASCII <3>\DUP\
      55 44 02 00010 ;STR
      U.9: .ASCII <2>\DU\
      50 44 02 00013 ;STR
      U.11: .ASCII <2>\DP\
      51 44 02 00016 ;STR
      U.13: .ASCII <2>\DQ\
      4C 44 02 00019 ;STR
      U.15: .ASCII <2>\DL\
      41 44 02 0001C ;STR
      U.17: .ASCII <2>\DA\
45 54 44 03 0001F ;STR
      U.19: .ASCII <3>\DTE\
      4C 4B 02 00023 ;STR
      U.21: .ASCII <2>\KL\
50 4D 44 03 00026 ;STR
      U.23: .ASCII <3>\DMP\
56 4D 44 03 0002A ;STR
      U.25: .ASCII <3>\DMV\
56 50 44 03 0002E ;STR
      U.27: .ASCII <3>\DPV\
46 4D 44 03 00032 ;STR
      U.29: .ASCII <3>\DMF\

```

.PSECT MOMSMOPDEVTABLE,NOWRT,NOEXE,0

```

00000 MOM$AB_MOPDEVICES::
      0C 00000 ;IND      .BLKB 0
      00000000' 00001 U.2:  .BYTE 12
      01 00005 ;IND      .ADDRESS U.1
      00000000' 00006 U.4:  .BYTE 1
      01 0000A ;IND      .ADDRESS U.3
      00000000' 0000B U.6:  .BYTE 1
      0A 0000F ;IND      .ADDRESS U.5
      00000000' 00010 U.8:  .BYTE 10
      02 00014 ;IND      .ADDRESS U.7
      00000000' 00015 U.10: .BYTE 2
      00 00019 ;IND      .ADDRESS U.9
      00000000' 0001A U.12: .BYTE 0
      06 0001E ;IND      .ADDRESS U.11
      00000000' 0001F U.14: .BYTE 6
      04 00023 ;IND      .ADDRESS U.13
      00000000' 00024 U.16: .BYTE 4
      08 00028 ;IND      .ADDRESS U.15
      00000000' 00029 U.18: .BYTE 8
      14 0002D ;IND      .ADDRESS U.17
      00000000' 0002E U.20: .BYTE 20
      20 00032 ;IND      .ADDRESS U.19
      00000000' 00033 U.22: .BYTE 32
      12 00037 ;IND      .ADDRESS U.21
      00000000' 00038 U.24: .BYTE 18
      22 0003C ;IND      .ADDRESS U.23
      00000000' 0003D U.26: .BYTE 34
      24 00041 ;IND      .ADDRESS U.25
      00000000' 00042 U.28: .BYTE 36
      26 00046 ;IND      .ADDRESS U.27
      00000000' 00047 U.30: .BYTE 38
      .ADDRESS U.29

```

.PSECT \$SPLITS,NOWRT,NOEXE,2

```

3A 54 45 4E 5F 00000 P.AAB: .ASCII \_NET:\
      00005 .BLKB 3
      00000005 00008 P.AAA: .LONG 5
      00000000 0000C .ADDRESS P.AAB

```

.....

.....

```

3A 44 4E 5F 00010 P.AAD: .ASCII \_ND:\
      00000004 00014 P.AAC: .LONG 4
      00000000' 00018 .ADDRESS P.AAD
3A 57 4E 5F 0001C P.AAF: .ASCII \_NW:\
      00000004 00020 P.AAE: .LONG 4
      00000000' 00024 .ADDRESS P.AAF
      000000C5 00028 P.AAG: .LONG 197
      00000000' 0002C .ADDRESS MOMSAB_NICE_RCV_BUF
      000000C5 00030 P.AAH: .LONG 197
      00000000' 00034 .ADDRESS MOMSAB_NICE_XMIT_BUF
      00000200 00038 P.AAI: .LONG 512
      00000000' 0003C .ADDRESS MOMSAB_ACPQIO_BUFFER
      000005DC 00040 P.AAJ: .LONG 1500
      00000000' 00044 .ADDRESS MOMSAB_MOP_XMIT_BUF
      000005DC 00048 P.AAK: .LONG 1500
      00000000' 0004C .ADDRESS MOMSAB_MOP_RCV_BUF

```

.PSECT \$GLOBAL\$,NOEXE,2

```

00000 00000 MOM$GQ_PROPRVMSK::
      .BLKB 8
00008 00008 MOM$GW_ACP_CHAN::
      .BLKB 4
00000000 0000C MOM$GL_LOGMASK::
      .LONG 0
00010 00010 MOM$GL_SVD_INDEX::
      .BLKB 4
00014 00014 MOM$GB_FUNCTION::
      .BLKB 1
00015 00015 MOM$GB_OPTION_BYTE::
      .BLKB 1
00016 .BLKB 2
00018 00018 MOM$AB_NPARSE_BLK::
      .BLKB 36
0003C 0003C MOM$GB_ENTITY_CODE::
      .BLKB 1
0003D .BLKB 3
00040 00040 MOM$AB_ENTITY_BUF::
      .BLKB 32
00000000 00060 MOM$GQ_ENTITY_BUF_DSC::
      .LONG 0
00000000' 00064 .ADDRESS MOM$AB_ENTITY_BUF
00068 00068 MOM$GL_SERVICE_FLAGS::
      .BLKB 4
0006C 0006C MOM$GB_EVT_POPR::
      .BLKB 1
0006D 0006D MOM$GB_EVT_PRSN::
      .BLKB 1
0006E 0006E MOM$GB_EVT_PSER::
      .BLKB 1
0006F .BLKB 1
00070 00070 MOM$GW_EVT_CODE::
      .BLKB 2
00072 .BLKB 2
00074 00074 MOM$AB_NML_MAILBOX_BUFFER::
      .BLKB 200
0013C 0013C MOM$GL_NICE_RCV_MSG_LEN::

```



```

                                .BLKB 4
00140 MOMSAB_NICE_XMIT_BUF::
                                .BLKB 197
00205
                                .BLKB 3
00208 MOMSAB_ACPQIO_BUFFER::
                                .BLKB 512
FFFFFFFF 00000000 00408 MOMSGQ_TIMEOUT::
                                .LONG 0, -1
00410 MOMSAB_CIB::
                                .BLKB 76
0045C MOMSAB_LOOP_CIB::
                                .BLKB 76
004A8 MOMSAB_MOP_XMIT_BUF::
                                .BLKB 1500
00A84 MOMSAB_MOP_RCV_BUF::
                                .BLKB 1500
01060 MOMSAB_MOP_MSG::
                                .BLKB 1500
0163C MOMSGQ_MOP_MSG_DSC::
                                .BLKB 8
01644 MOMSAB_MSGBLOCK::
                                .BLKB 28
02010012 01660 MOMSAB_SERVICE_DATA::
                                .LONG 33619986
                                01F6 01664 .WORD 502
                                01 01666 .BYTE 1
                                00# 01667 .BYTE 0[130]
02010019 016E9 .LONG 33619993
                                0070 016ED .WORD 112
                                00 016EF .BYTE 0
                                00# 016F0 .BYTE 0[130]
0201001A 01772 .LONG 33619994
                                0071 01776 .WORD 113
                                00 01778 .BYTE 0
                                00# 01779 .BYTE 0[130]
0201001B 017FB .LONG 33619995
                                007D 017FF .WORD 125
                                00 01801 .BYTE 0
                                00# 01802 .BYTE 0[130]
0201001C 01884 .LONG 33619996
                                0087 01888 .WORD 135
                                02 0188A .BYTE 2
                                00# 0188B .BYTE 0[130]
0201001D 0190D .LONG 33619997
                                0088 01911 .WORD 136
                                02 01913 .BYTE 2
                                00# 01914 .BYTE 0[130]
0201001F 01996 .LONG 33619999
                                008D 0199A .WORD 141
                                01 0199C .BYTE 1
                                00# 0199D .BYTE 0[130]
02020043 01A1F .LONG 33685571
                                01F4 01A23 .WORD 500
                                03 01A25 .BYTE 3
                                00# 01A26 .BYTE 0[130]
02020044 01AA8 .LONG 33685572
                                006E 01AAC .WORD 110

```

.....

03	01AAE	.BYTE	3
00#	01AAF	.BYTE	0[130]
02020045	01B31	.LONG	33685573
006F	01B35	.WORD	111
03	01B37	.BYTE	3
00#	01B38	.BYTE	0[130]
02020057	01BBA	.LONG	33685591
0072	01BBE	.WORD	114
03	01BC0	.BYTE	3
00#	01BC1	.BYTE	0[130]
02010023	01C43	.LONG	33620003
0073	01C47	.WORD	115
00	01C49	.BYTE	0
00#	01C4A	.BYTE	0[130]
02020046	01CCC	.LONG	33685574
0078	01CD0	.WORD	120
03	01CD2	.BYTE	3
00#	01CD3	.BYTE	0[130]
02020047	01D55	.LONG	33685575
0079	01D59	.WORD	121
03	01D5B	.BYTE	3
00#	01D5C	.BYTE	0[130]
02020048	01DDE	.LONG	33685576
007A	01DE2	.WORD	122
03	01DE4	.BYTE	3
00#	01DE5	.BYTE	0[130]
02020056	01E67	.LONG	33685590
007B	01E6B	.WORD	123
03	01E6D	.BYTE	3
00#	01E6E	.BYTE	0[130]
02020049	01EF0	.LONG	33685577
007E	01EF4	.WORD	126
03	01EF6	.BYTE	3
00#	01EF7	.BYTE	0[130]
0202004A	01F79	.LONG	33685578
0082	01F7D	.WORD	130
03	01F7F	.BYTE	3
00#	01F80	.BYTE	0[130]
0202004B	02002	.LONG	33685579
0083	02006	.WORD	131
03	02008	.BYTE	3
00#	02009	.BYTE	0[130]
00000000	0208B	.LONG	0
8000	0208F	.WORD	-32768
03	02091	.BYTE	3
00#	02092	.BYTE	0[130]
00000000	02114	.LONG	0
2000	02118	.WORD	8192
03	0211A	.BYTE	3
0#	0211B	.BYTE	0[130]
0000000C	0219D	.LONG	0
4000	021A1	.WORD	16384
00	021A3	.BYTE	0
00#	021A4	.BYTE	0[130]
00000000	02226	.LONG	0
000A	0222A	.WORD	10
03	0222C	.BYTE	3

.....

MOP Device Table

00#	0222D	.BYTE	0[130]
00000000	022AF	.LONG	0
0100	022B3	.WORD	256
03	022B5	.BYTE	3
00#	022B6	.BYTE	0[130]
01010025	02338	.LONG	16842789
0096	0233C	.WORD	150
01	0233E	.BYTE	1
00#	0233F	.BYTE	0[130]
01010026	023C1	.LONG	16842790
0097	023C5	.WORD	151
01	023C7	.BYTE	1
00#	023C8	.BYTE	0[130]
01010027	0244A	.LONG	16842791
0098	0244E	.WORD	152
00	02450	.BYTE	0
00#	02451	.BYTE	0[130]
0101002B	024D3	.LONG	16842795
009A	024D7	.WORD	154
00	024D9	.BYTE	0
00#	024DA	.BYTE	0[130]
00000000	0255C	.LONG	0
0099	02560	.WORD	153
03	02562	.BYTE	3
00#	02563	.BYTE	0[130]
00000000	025E5	.LONG	0
009B	025E9	.WORD	155
01	025EB	.BYTE	1
00#	025EC	.BYTE	0[130]
00000000	0266E	.LONG	0
1000	02672	.WORD	4096
03	02674	.BYTE	3
00#	02675	.BYTE	0[130]
00000000	026F7	.LONG	0
0800	026FB	.WORD	2048
03	026FD	.BYTE	3
00#	026FE	.BYTE	0[130]
00000000	02780	.LONG	0
009C	02784	.WORD	156
01	02786	.BYTE	1
00#	02787	.BYTE	0[130]
00000000	02809	.LONG	0
0400	0280D	.WORD	1024
03	0280F	.BYTE	3
00#	02810	.BYTE	0[130]
00000000	02892	.LONG	0
0200	02896	.WORD	512
03	02898	.BYTE	3
00#	02899	.BYTE	0[130]
05010015	0291B	.LONG	83951637
0460	0291F	.WORD	1120
01	02921	.BYTE	1
	02922	.BLKB	130

MOM\$GQ_NETNAMDSC== P.AAA
MOM\$GQ_DLE_NAMDSC== P.AAC
MOM\$GQ_PSIRAMDSC== P.AAE

MOMSK_NML_MBX_BUF_LEN==
200
MOMSAB_NCP_VERSION==MOMSAB_NML_MAILBOX_BUFFER
MOMSAB_NICE_RCV_BUF==
MOMSAB_NML_MAILBOX_BUFFER+3
MOMSGQ_NICE_RCV_BUF_DSC==
P.AAG
MOMSGQ_NICE_XMIT_BUF_DSC==
P.AAH
MOMSGQ_ACPQIO_BUF_DSC==
P.AAI
MOMSAB_TRIGGER_CIB==MOMSAB_LOOP_CIB
MOMSGQ_MOP_XMIT_BUF_DSC==
P.AAJ
MOMSGQ_MOP_RCV_BUF_DSC==
P.AAK
NMASC_PCNO_\$HNA== 32768
NMASC_PCNO_\$FTY== 16384
NMASC_PCNO_\$HHW== 8192
NMASC_PCNO_\$LNA== 4096
NMASC_PCNO_\$LNH== 2048
NMASC_PCNO_\$LNN== 1024
NMASC_PCNO_\$LAH== 512
NMASC_PCNO_\$DA== 256
SVDSGK_PCNO_ADD== 0
SVDSGK_PCNO_SDV== 1
SVDSGK_PCNO_CPU== 2
SVDSGK_PCNO_STY== 3
SVDSGK_PCNO_DAD== 4
SVDSGK_PCNO_DCT== 5
SVDSGK_PCNO_IHO== 6
SVDSGK_PCNO_NNA== 7
SVDSGK_PCNO_SLI== 8
SVDSGK_PCNO_SPA== 9
SVDSGK_PCNO_HWA== 10
SVDSGK_PCNO_SNV== 11
SVDSGK_PCNO_LOA== 12
SVDSGK_PCNO_SLO== 13
SVDSGK_PCNO_TLO== 14
SVDSGK_PCNO_DFL== 15
SVDSGK_PCNO_SID== 16
SVDSGK_PCNO_DUM== 17
SVDSGK_PCNO_SDU== 18
SVDSGK_PCNO_\$HNA== 19
SVDSGK_PCNO_\$HHW== 20
SVDSGK_PCNO_\$FTY== 21
SVDSGK_PCNO_PHA== 22
SVDSGK_PCNO_\$DA== 23
SVDSGK_PCNO_LPC== 24
SVDSGK_PCNO_LPL== 25
SVDSGK_PCNO_LPD== 26
SVDSGK_PCNO_LPH== 27
SVDSGK_PCNO_LPA== 28
SVDSGK_PCNO_LPN== 29
SVDSGK_PCNO_\$LNA== 30
SVDSGK_PCNO_\$LNH== 31
SVDSGK_PCNO_LAN== 32

SVDSGK_PCNO_\$LNN== 33
SVDSGK_PCNO_\$LAH== 34
SVDSGK_PCLI_STI== 35
SVDSG_ENTRY_COUNT== 36
MOTSGR_MOPDEVcnt== 15

PSECT SUMMARY

Name	Bytes	Attributes
\$GLOBALS	10660	NOVEC, WRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
\$SPLITS	80	NOVEC, NOWRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
MOM\$MOPDEVTABLE	75	NOVEC, NOWRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(0)
MOM\$MOPDEVNAMES	54	NOVEC, NOWRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(0)
. ABS .	0	NOVEC, NOWRT, NORD, NOEXE, NOSHR, LCL, ABS, CON, NOPIC, ALIGN(0)

Library Statistics

File	Symbols			Pages Mapped	Processing Time
	Total	Loaded	Percent		
_\$255\$DUA28:[MOM.OBJ]MOMLIB.L32;1	194	19	9	21	00:00.1
_\$255\$DUA28:[SHRLIB]NMALIBRY.L32;1	887	42	4	47	00:00.2
_\$255\$DUA28:[SHRLIB]NET.L32;1	1279	24	1	63	00:00.3
_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	0	0	581	00:03.1

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:MOMDAT/OBJ=OBJ\$:MOMDAT MSRC\$:MOMDAT/UPDATE=(ENHS:MOMDAT)

517 0512 0
Size: 0 code + 10869 data bytes
Run Time: 00:18.7
Elapsed Time: 00:39.9
Lines/CPU Min: 1642
Lexemes/CPU-Min: 40193
Memory Used: 120 pages
Compilation Complete

A dense grid of technical diagrams and data tables, organized into a grid of approximately 15 columns and 15 rows. Each cell contains a small diagram or table, often with a title. Some prominent titles include:

- MOMBLMSG LIS
- MOMINISTA LIS
- MOMLOAD LIS
- MOMACPIO LIS
- MOMDAT LIS
- NMAHEAD B32
- NPADEF SCL
- MOMDEF SCL
- NMATAIL B32
- MOMDDL B32
- NPAMAC MAR
- MOMFILTO LIS
- MOMLIB LIS

The diagrams consist of various symbols, lines, and text, representing complex technical information. The overall layout is highly structured and repetitive, typical of a technical manual or reference guide.