

NNN		NNN	CCCCCCCCCCCC	PPPPPPPPPPPP	
NNN		NNN	CCCCCCCCCCCC	PPPPPPPPPPPP	
NNN		NNN	CCCCCCCCCCCC	PPPPPPPPPPPP	
NNN		NNN	CCC	PPP	PPP
NNN		NNN	CCC	PPP	PPP
NNN		NNN	CCC	PPP	PPP
NNNNNN		NNN	CCC	PPP	PPP
NNNNNN		NNN	CCC	PPP	PPP
NNNNNN		NNN	CCC	PPP	PPP
NNN	NNN	NNN	CCC	PPPPPPPPPPPP	
NNN	NNN	NNN	CCC	PPPPPPPPPPPP	
NNN	NNN	NNN	CCC	PPPPPPPPPPPP	
NNN		NNNNNN	CCC	PPP	
NNN		NNNNNN	CCC	PPP	
NNN		NNNNNN	CCC	PPP	
NNN		NNN	CCC	PPP	
NNN		NNN	CCC	PPP	
NNN		NNN	CCC	PPP	
NNN		NNN	CCC	PPP	
NNN		NNN	CCCCCCCCCCCC	PPP	
NNN		NNN	CCCCCCCCCCCC	PPP	
NNN		NNN	CCCCCCCCCCCC	PPP	

```

LL          IIIIII          SSSSSSSS
LL          IIIIII          SSSSSSSS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SSSSSS
LL          II             SSSSSS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SS
LLLLLLLLLLLL IIIIII          SSSSSSSS
LLLLLLLLLLLL IIIIII          SSSSSSSS

```



```
0001 0 %TITLE 'X.25 Access Module Parsing'
0002 0 MODULE NCPSTAMAC (IDENT = 'V04-000',LIST(NOOBJECT)) =
0003 1 BEGIN
0004 1
0005 1
0006 1 *****
0007 1 *
0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0024 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0025 1 *
0026 1 *
0027 1 *****
0028 1
0029 1
0030 1 ++
0031 1 FACILITY:      Network Control Program (NCP)
0032 1
0033 1 ABSTRACT:
0034 1
0035 1     States and data for the parsing of NCP SET / CLEAR X.25-ACCESS
0036 1     module parameters.
0037 1
0038 1 ENVIRONMENT:  VAX/VMS Operating System
0039 1
0040 1 AUTHOR:      Paul R. DeStefano, February 1984
0041 1
0042 1 MODIFIED BY:
0043 1
0044 1     V03-001 PRD0086      Paul R. DeStefano      26-Mar-1984
0045 1     Corrected parameter type for NODE.
0046 1
0047 1 --
```

```

: 49      0048 1 %SBTTL 'Definitions'
: 50      0049 1
: 51      0050 1
: 52      0051 1 INCLUDE FILES:
: 53      0052 1
: 54      0053 1
: 55      0054 1 LIBRARY 'LIB$:NMALIBRY';
: 56      0055 1 LIBRARY 'LIB$:NCPLIBRY';
: 57      0056 1 LIBRARY 'SYSS$LIBRARY:TPAMAC';
: 58      0057 1
: 59      0058 1
: 60      0059 1 EXTERNAL REFERENCES:
: 61      0060 1
: 62      0061 1 ACT_DFN ! Action routine externals
: 63      0062 1 EXTERNAL
: 64      0063 1 NCP$GL_QUALPRS; ! Qualifier was present on command line
: 65      0064 1
: 66      0065 1
: 67      0066 1 OWN STORAGE:
: 68      0067 1
: 69      0068 1
: 70      0069 1
: 71      0070 1
: 72      0071 1 LITERALS
: 73      0072 1
: 74      0073 1
: 75      0074 1 LITERAL
: 76      0075 1 QUALPRESENT = 1; ! Qualifier was present on command line
```



```
78 0076 1 %SBTTL 'Set Parameter blocks'
79 0077 1
80 0078 1
81 0079 1 SET X25-ACCESS Parameter Blocks
82 0080 1
83 0081 1
84 P 0082 1 BUILD_PCL
85 P 0083 1
86 P 0084 1 (MAC, ! Module X25-ACCESS
87 P 0085 1
88 P 0086 1 NET, TKN, PCXA_NET, ,
89 P 0087 1
90 P 0088 1 ACC, TKN, PCXA_ACC, ,
91 P 0089 1 NOD, NADR, PCXA_NOD, ,
92 P 0090 1 PSW, TKN, PCXA_PSW, ,
93 P 0091 1 USR, TKN, PCXA_USR, ,
94 P 0092 1
95 P 0093 1 , END, , ,
96 P 0094 1
97 0095 1 )
98 0096 1
99 P 0097 1 BUILD_PBK
100 P 0098 1
101 P 0099 1 (MAC, ! Module X25-ACCESS
102 P 0100 1
103 P 0101 1 NET, TKN, ,
104 P 0102 1 KNT, LITB, NMASC_ENT_KNO, MAC_NET, ! KNOWN NETWORKS
105 P 0103 1 ACC, TKN, , ,
106 P 0104 1 NOD, NADR, , ,
107 P 0105 1 PSW, TKN, , ,
108 P 0106 1 USR, TKN, , ,
109 P 0107 1
110 P 0108 1
111 0109 1 )
112 0110 1
113 0111 1 BIND PDB$G_MAC_ENT = ! Access entity name
114 0112 1 UPLIT-BYTE(0, %ASCIC 'X25-ACCESS');
115 0113 1
116 P 0114 1 BUILD_SDB
117 P 0115 1
118 0116 1 (MAC, NMASC_ENT_MOD, MAC_ENT, MAC)
```

```
.. 120      0117 1 %SBTTL 'Clear Parameter blocks'
.. 121      0118 1
.. 122      0119 1
.. 123      0120 1
.. 124      0121 1
.. 125      0122 1
.. 126      P 0123 1 BUILD_PCL
.. 127      P 0124 1
.. 128      P 0125 1 (CAC, ! Module X25-ACCESS
.. 129      P 0126 1
.. 130      P 0127 1 NET, TKN, PCXA_NET, ,
.. 131      P 0128 1
.. 132      P 0129 1 ACC, LITB, PCXA_ACC, ,
.. 133      P 0130 1 NOD, LITB, PCXA_NOD, ,
.. 134      P 0131 1 PSW, LITB, PCXA_PSW, ,
.. 135      P 0132 1 USR, LITB, PCXA_USR, ,
.. 136      P 0133 1
.. 137      P 0134 1 , END, , ,
.. 138      P 0135 1 )
.. 139      P 0136 1
.. 140      P 0137 1
.. 141      P 0138 1 BUILD_PBK
.. 142      P 0139 1
.. 143      P 0140 1 (CAC, ! Module X25-ACCESS
.. 144      P 0141 1
.. 145      P 0142 1 ALL, LITB, 0, VRB_ALL,
.. 146      P 0143 1
.. 147      P 0144 1 NET, TKN, ,
.. 148      P 0145 1 KNT, LITB, NMASC_ENT_KNO, CAC_NET, ! KNOWN NETWORKS
.. 149      P 0146 1 ACC, LITB, , ,
.. 150      P 0147 1 NOD, LITB, , ,
.. 151      P 0148 1 PSW, LITB, , ,
.. 152      P 0149 1 USR, LITB, , ,
.. 153      P 0150 1
.. 154      P 0151 1 )
.. 155      P 0152 1
.. 156      P 0153 1
.. 157      P 0154 1 BUILD_SDB
.. 158      P 0155 1
.. 159      P 0156 1 (CAC, NMASC_ENT_MOD, MAC_ENT, CAC)
```



```
161 0157 1 %SBTTL 'Prompt strings'
162 0158 1
163 0159 1
164 0160 1 Build prompt strings
165 0161 1
166 0162 1
167 0163 1 BIND
168 0164 1
169 P 0165 1 PROMPT_STRINGS
170 P 0166 1 (MAC,
171 P 0167 1
172 P 0168 1 DAT, ' (NETWORK name, or KNOWN NETWORKS): ',
173 P 0169 1 NET, ' NETWORK (1-16 characters): ',
174 P 0170 1
175 P 0171 1 ACC, 'Account (1-39 characters): ',
176 P 0172 1 NOD, 'Node name (1-6 characters): ',
177 P 0173 1 PSW, 'Password (1-39 characters): ',
178 P 0174 1 USR, 'User (1-39 characters): ',
179 P 0175 1
180 0176 1 ),
181 0177 1
182 P 0178 1 PROMPT_STRINGS
183 P 0179 1 (CAC,
184 P 0180 1
185 P 0181 1 DAT, ' (NETWORK name, or KNOWN NETWORKS): ',
186 P 0182 1 NET, ' NETWORK (1-16 characters): ',
187 P 0183 1
188 P 0184 1 ALL, 'All X.25 access parameters (Y, N): ',
189 P 0185 1 ACC, 'Account (Y, N): ',
190 P 0186 1 NOD, 'Node (Y, N): ',
191 P 0187 1 PSW, 'Password (Y, N): ',
192 P 0188 1 USR, 'User (Y, N): ',
193 P 0189 1
194 0190 1 );
```

```
: 196      0191 1 XSBTTL 'Declare entry points to TPARSE tables'
: 197      0192 1
: 198      0193 1 !
: 199      0194 1 !           Declare entry points to this TPARSE table
: 200      0195 1 !
: 201      0196 1
: 202      0197 1 $INIT_STATE (NCP$G_STTBL_MAC, NCP$G_KYTBL_MAC);
: 203      0198 1
: 204      0199 1 FORWARD
: 205      0200 1          ST_CAC:          VECTOR [0];          ! Clear X25-Access
: 206      0201 1
: 207      0202 1 GLOBAL BIND
: 208      0203 1          NCP$G_STTBL_CAC = ST_CAC,
: 209      0204 1          NCP$G_KYTBL_CAC = NCP$G_KYTBL_MAC;
```



```
211 0205 1 %SBTTL 'SET X25-ACCESS Module Parameters'
212 0206 1
213 0207 1
214 0208 1 SET/DEFINE MODULE X25-ACCESS parameter states
215 0209 1
216 0210 1
217 P 0211 1 $STATE (ST_MAC,
218 P 0212 1 (TPAS_EOS, ST_MAC_PMT_DAT),
219 P 0213 1 (TPAS_LAMBDA, ST_MAC_DAT)
220 0214 1 );
221 0215 1
222 P 0216 1 $STATE (ST_MAC_PMT_DAT,
223 0217 1 (TPAS_LAMBDA, ACT$PRMPT,,, PMT$G_MAC_DAT));
224 0218 1
225 0219 1
226 P 0220 1 $STATE (ST_MAC_DAT, ! Determine if KNOWN specified
227 P 0221 1 ('NETWORK', ST_MAC_DAT_NET),
228 P 0222 1 ('KNOWN', ST_MAC_DAT_KWN),
229 0223 1 );
230 0224 1
231 0225 1
232 0226 1 Prompt for access parameters
233 0227 1
234 0228 1
235 P 0229 1 $STATE (ST_MAC_DAT_NET,
236 0230 1 (TPAS_LAMBDA));
237 0231 1
238 P 0232 1 COMMAND PROMPT
239 P 0233 1 (MAC, NET, NCP$_INVKEY,
240 P 0234 1 ((SE_NET_NAME),, ACT$SAVPRM, QUALPRESENT, NCP$GL_QUALPRS, PBK$G_MAC_NET));
241 0235 1
242 0236 1
243 P 0237 1 $STATE (ST_MAC_PMT_NET,
244 P 0238 1 (TPAS_EOS),
245 0239 1 (TPAS_LAMBDA, ST_MAC_PRC));
246 0240 1
247 P 0241 1 PROMPT_STATES
248 P 0242 1 (MAC,
249 P 0243 1 ACC, NOD, PSW, USR
250 0244 1 )
251 0245 1
252 P 0246 1 $STATE (ST_MAC_DOIT,
253 P 0247 1 (TPAS_LAMBDA, TPAS_EXIT, ACT$VRB_UTILITY, , , SDB$G_MAC),
254 0248 1 );
255 0249 1
256 0250 1
257 0251 1 Dispatch on KNOWN keyword during prompting
258 0252 1
259 0253 1
260 P 0254 1 $STATE (ST_MAC_DAT_KWN,
261 P 0255 1 (TPAS_EOS, ST_MAC_PMT_NET, ACT$SAVPRM,,, PBK$G_MAC_KNT),
262 P 0256 1 ('NETWORKS', ST_MAC_PMT_NET, ACT$SAVPRM,,, PBK$G_MAC_KNT),
263 0257 1 );
```

```
.. 265      0258 1
.. 266      0259 1
.. 267      0260 1      Dispatch States
.. 268      0261 1
.. 269      0262 1
.. 270      P 0263 1  $STATE (ST_MAC_PRC,
.. 271      P 0264 1
.. 272      P 0265 1      ((SE_ALL), ST_MAC_DOIT),
.. 273      P 0266 1
.. 274      P 0267 1      DISPATCH_STATES
.. 275      P 0268 1      (MAC,
.. 276      P 0269 1
.. 277      P 0270 1      ACC, 'ACCOUNT',
.. 278      P 0271 1      NOD, 'NODE',
.. 279      P 0272 1      PSW, 'PASSWORD',
.. 280      P 0273 1      USR, 'USER'
.. 281      P 0274 1
.. 282      P 0275 1      )
.. 283      P 0276 1      (TPAS_EOS, ST_MAC_DOIT)
.. 284      0277 1      );
```

```

: 286      0278 1
: 287      0279 1
: 288      0280 1      Dispatch on KNOWN keyword
: 289      0281 1
: 290      0282 1
: 291      P 0283 1 $STATE (ST_MAC_PRC KWN,
: 292      0284 1      ((SE_MAC_KWN), ST_MAC_PRC));
: 293      0285 1
: 294      P 0286 1 $STATE (SE_MAC_KWN,
: 295      P 0287 1
: 296      P 0288 1      KEYWORD_STATE
: 297      P 0289 1      (MAC,
: 298      P 0290 1
: 299      P 0291 1      KNT, 'NETWORKS',
: 300      P 0292 1
: 301      0293 1      ));
: 302      0294 1

```



```

.. 304      0295  1
.. 305      0296  1
.. 306      0297  1
.. 307      0298  1
.. 308      0299  1
.. 309      P 0300  1
.. 310      P 0301  1
.. 311      P 0302  1
.. 312      P 0303  1
.. 313      P 0304  1
.. 314      P 0305  1
.. 315      P 0306  1
.. 316      P 0307  1
.. 317      0308  1

```

Process states - call subexpressions to store value

```

PROCESS_STATES
(MAC,
ACC, .
NOD, .
PSW, .
USR, .
)

```

X.25 Access Module Parsing

SET X25-ACCESS Module Parameters

N 7
16-Sep-1984 00:50:52
14-Sep-1984 12:48:27

VAX-11 BLiss-32 V4.0-742
[NCP.SRC]NCPSTAMAC.B32;1

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319		0309	1	
320		0310	1	
321		0311	1	
322		0312	1	
323		0313	1	
324	P	0314	1	
325	P	0315	1	
326	P	0316	1	
327	P	0317	1	
328	P	0318	1	
329	P	0319	1	
330	P	0320	1	
331	P	0321	1	
332		0322	1	

Sub_expressions

SUB_EXPRESSIONS

(MAC,

ACC, (SE_ACC_ACC),

NOD, (SE_NODE_ID),

PSW, (SE_ACC_PSW),

USR, (SE_ACC_USR),

)


```
334 0323 1 %SBTTL 'CLEAR X25-ACCESS Module Parameters'
335 0324 1
336 0325 1
337 0326 1 CLEAR/PURGE MODULE X25-ACCESS parameter states
338 0327 1
339 0328 1
340 P 0329 1 $STATE (ST_CAC,
341 P 0330 1 (TPAS_EOS, ST_CAC_PMT_DAT),
342 P 0331 1 (TPAS_LAMBDA, ST_CAC_DAT)
343 0332 1 );
344 0333 1
345 0334 1
346 P 0335 1 $STATE (ST_CAC_PMT_DAT,
347 0336 1 (TPAS_LAMBDA, ACT$PRMPT, PMT$G_CAC_DAT));
348 0337 1
349 0338 1
350 P 0339 1 $STATE (ST_CAC_DAT, ! Determine if KNOWN specified
351 P 0340 1 ('NETWORK', ST_CAC_DAT_NET),
352 P 0341 1 ('KNOWN', ST_CAC_DAT_KWN),
353 0342 1 );
354 0343 1
355 0344 1
356 0345 1 Prompt for access parameters
357 0346 1
358 0347 1
359 0348 1
360 P 0349 1 $STATE (ST_CAC_DAT_NET,
361 0350 1 (TPAS_LAMBDA));
362 0351 1
363 P 0352 1 COMMAND PROMPT
364 P 0353 1 (CAC, NET, NCP$_INVKEY,
365 P 0354 1 ((SE_NET_NAME), ACT$SAVPRM, QUALPRESENT, NCP$GL_QUALPRS, PBK$G_CAC_NET));
366 0355 1
367 0356 1
368 P 0357 1 $STATE (ST_CAC_PMT_NET,
369 P 0358 1 (TPAS_EOS),
370 0359 1 (TPAS_LAMBDA, ST_CAC_PRC));
371 0360 1
372 P 0361 1 QUERY_STATES
373 P 0362 1 (CAC,
374 0363 1 ALL, ACC, PSW, USR)
375 0364 1
376 P 0365 1 $STATE (ST_CAC_DOIT,
377 P 0366 1 (TPAS_LAMBDA, TPAS_EXIT, ACT$VRB_UTILITY, , SDB$G_CAC),
378 0367 1 );
379 0368 1
380 0369 1
381 0370 1
382 0371 1 Dispatch on KNOWN keyword during prompting
383 0372 1
384 0373 1
385 P 0374 1 $STATE (ST_CAC_DAT_KWN,
386 P 0375 1 (TPAS_EOS, ST_CAC_PMT_NET, ACT$SAVPRM, PBK$G_CAC_KNT),
387 P 0376 1 ('NETWORKS', ST_CAC_PMT_NET, ACT$SAVPRM, PBK$G_CAC_KNT),
388 0377 1 );
389 0378 1
```



```

: 391      0379 1
: 392      0380 1
: 393      0381 1
: 394      0382 1
: 395      0383 1
: 396      P 0384 1 $STATE (ST_CAC_PRC,
: 397      P 0385 1
: 398      P 0386 1 DISPATCH_STATES
: 399      P 0387 1 (CAC,
: 400      P 0388 1
: 401      P 0389 1 ALL, 'ALL',
: 402      P 0390 1 ACC, 'ACCOUNT',
: 403      P 0391 1 PSW, 'PASSWORD',
: 404      P 0392 1 USR, 'USER',
: 405      P 0393 1 )
: 406      P 0394 1 (TPAS_EOS, ST_CAC_DOIT)
: 407      0395 1 );

```

```

: 409      0396 1
: 410      0397 1
: 411      0398 1
: 412      0399 1
: 413      0400 1
: 414      P 0401 1 $STATE (ST_CAC_PRC_KWN,
: 415      0402 1 ((SE_CAC_KWN), ST_CAC_PRC));
: 416      0403 1
: 417      P 0404 1 $STATE (SE_CAC_KWN,
: 418      P 0405 1
: 419      P 0406 1 KEYWORD_STATE
: 420      P 0407 1 (CAC,
: 421      P 0408 1
: 422      P 0409 1 KNT, 'NETWORKS',
: 423      P 0410 1
: 424      0411 1 ));
: 425      0412 1
```



```

: 427      0413 1
: 428      0414 1
: 429      0415 1
: 430      0416 1
: 431      0417 1
: 432      0418 1
: 433      0419 1
: 434      0420 1
: 435      0421 1
: 436      0422 1
: 437      0423 1
: 438      0424 1
: 439      0425 1
: 440      0426 1

Process states - call subexpressions to store parameter ID's

PROCESS_STATES
(CAC,
ALL,
ACC,
PSW,
USR,
)

```

```

: 442      0427 1
: 443      0428 1
: 444      0429 1
: 445      0430 1
: 446      0431 1
: 447      P 0432 1
: 448      P 0433 1
: 449      P 0434 1
: 450      P 0435 1
: 451      P 0436 1
: 452      P 0437 1
: 453      P 0438 1
: 454      P 0439 1
: 455      0440 1

```

Sub_expressions

SUB_EXPRESSIONS
(CAC,

ALL, TPAS_EOS,

ACC, TPAS_LAMBDA,
PSW, TPAS_LAMBDA,
USR, TPAS_LAMBDA,
)


```

: 457      0441 1 %SBTTL 'Define Subexpressions'
: 458      0442 1
: 459      0443 1
: 460      0444 1
: 461      0445 1
: 462      0446 1
: 463      0447 1
: 464      0448 1
: 465      0449 1
: 466      0450 1
: 467      0451 1
: 468      0452 1

Define Subexpressions from Library

SEM_ALL           : All parameter
SEM_NET_NAME      : X25 Network name
SEM_ACCESS        : X25 Access Account, Password, User
SEM_NODE_ID       : Nodename, Node ID
SEM_QUOT_STR      : Quoted string
SEM_QUERY         : Query state subexpressions

```

NCPSTAMAC
V04-000

X.25 Access Module Parsing Define Subexpressions

16^H-8^S-Sep-1984 00:50:52
14-Sep-1984 12:48:27

VAX-11 BLISS-32 V4.0-742
[NCP.SRC]NCPSTAMAC.B32;1

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(18)

: 470
: 471

0453 1 END
0454 0 ELUDOM

NC
VO

0270

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