

z/OS Communications Server



Quick Reference

Version 1 Release 4

z/OS Communications Server



Quick Reference

Version 1 Release 4

Note:

Before using this information and the product it supports, be sure to read the general information under "Notices" on page 139.

Third Edition (September 2002)

This edition applies to Version 1 Release 4 of z/OS (5694-A01) and Version 1 Release 4 of z/OS.e (5655-G52) and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this document

This quick reference summarizes information found in:

- *z/OS Communications Server: IP Configuration Guide*
- *z/OS Communications Server: IP System Administrator's Commands*
- *z/OS Communications Server: SNA Operation*

The information in this document supports both IPv6 and IPv4. Unless explicitly noted, information describes IPv4 networking protocol. IPv6 support is qualified within the text.

This document is provided as a source of commonly used operation information for experienced system programmers and operators, and it contains information on:

- IP MVS™ Operator commands
- VTAM® commands
- VTAM start options

Use the table of contents to locate the reference information you need. For more detailed information, refer to the document listed at the start of each section.

This document supports z/OS.e™.

Part 1. IP commands

In this section, commands are listed alphabetically. For more information on these commands, refer to *z/OS Communications Server: IP Configuration Guide* and *z/OS Communications Server: IP System Administrator's Commands*.

IP commands

Chapter 1. IP MVS operator commands

DISPLAY TCPIP

Display the status of the current TCP/IP images:

This is the general format of the DISPLAY command used to display the status of the current TCP/IP images.

▶ `DISPLAY TCPIP` ▶

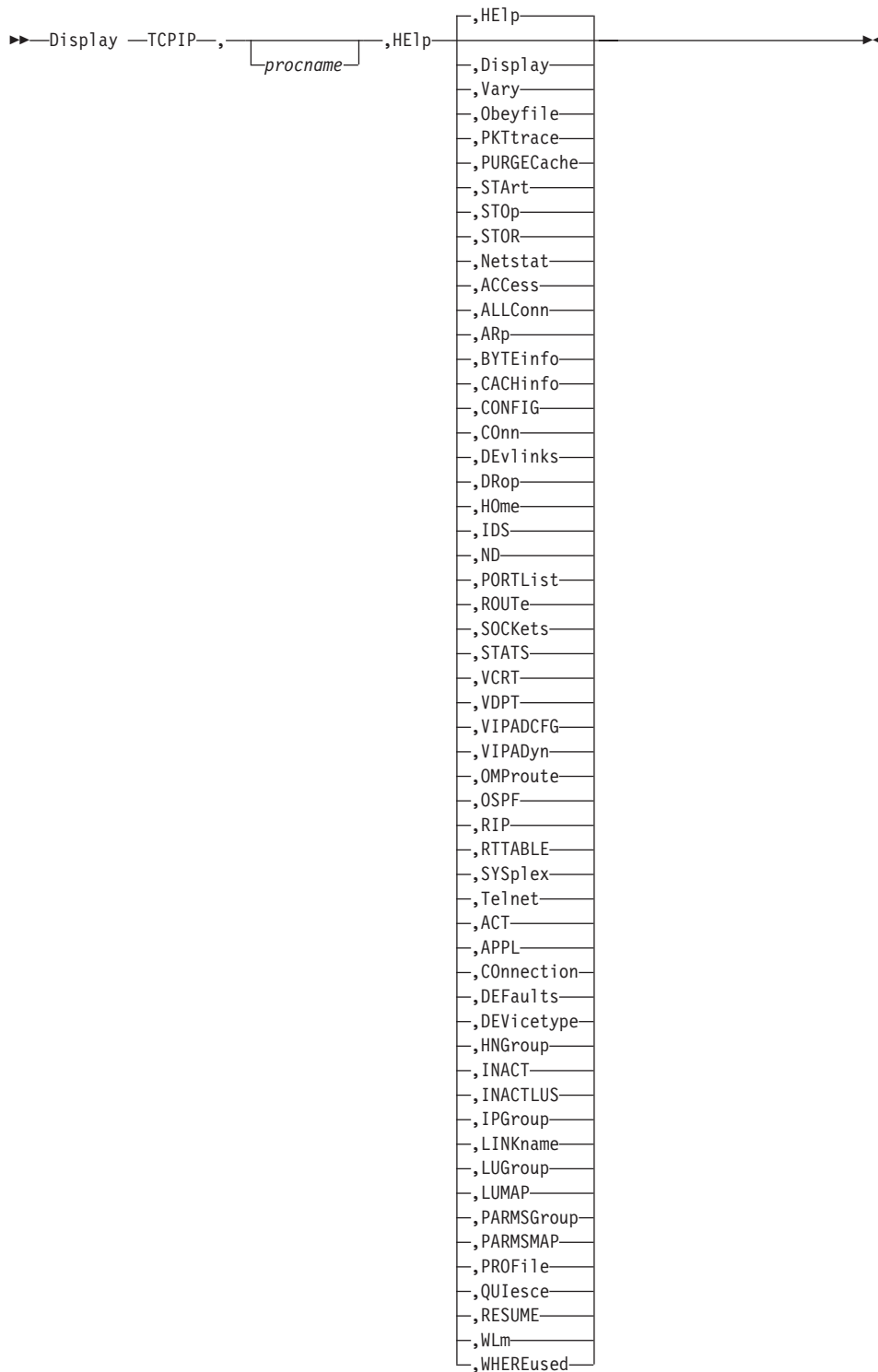
This is the format of DISPLAY command used to display information about TCP/IP applications.

▶ `DISPLAY TCPIP, procname, APPL=applid, CMD=CLIENT` ▶

DISPLAY TCPIP HELP

| Display the syntax of MVS operator commands for TCP/IP:

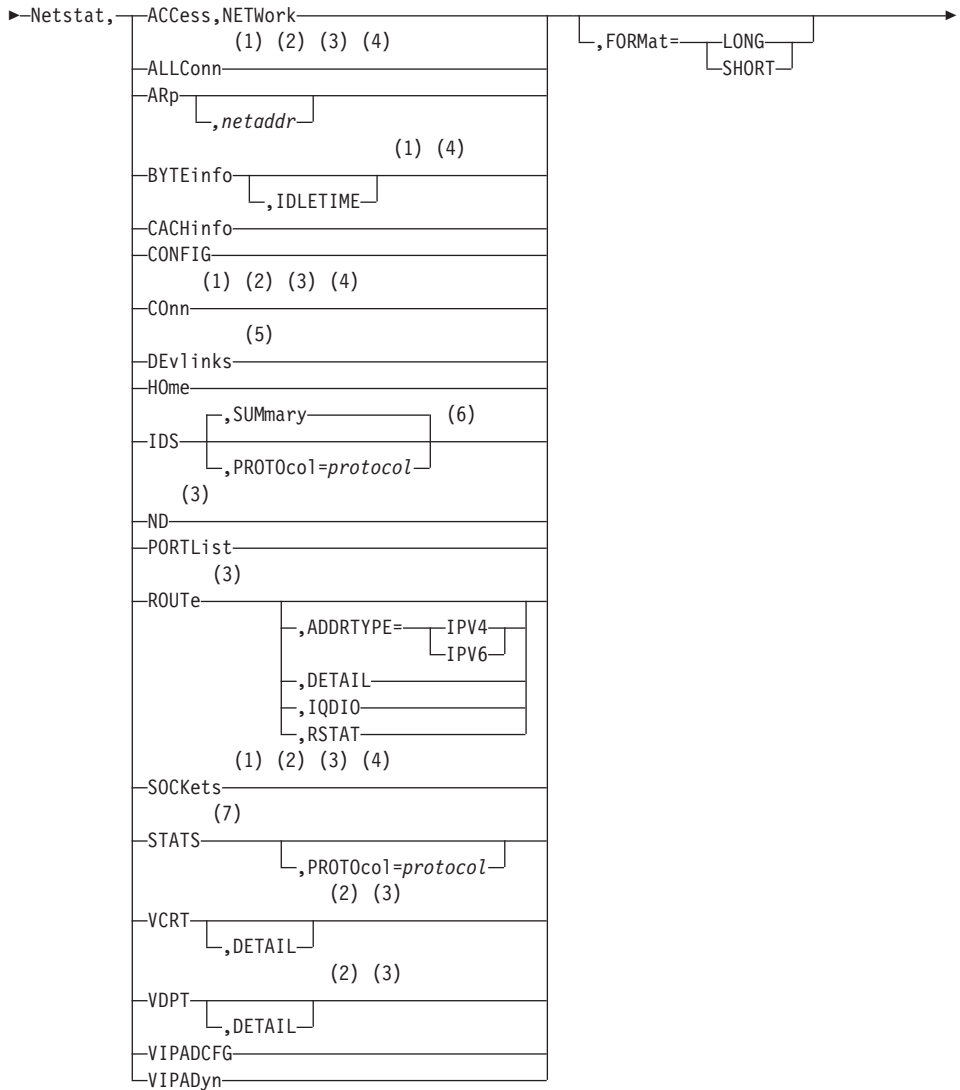
IP MVS operator commands



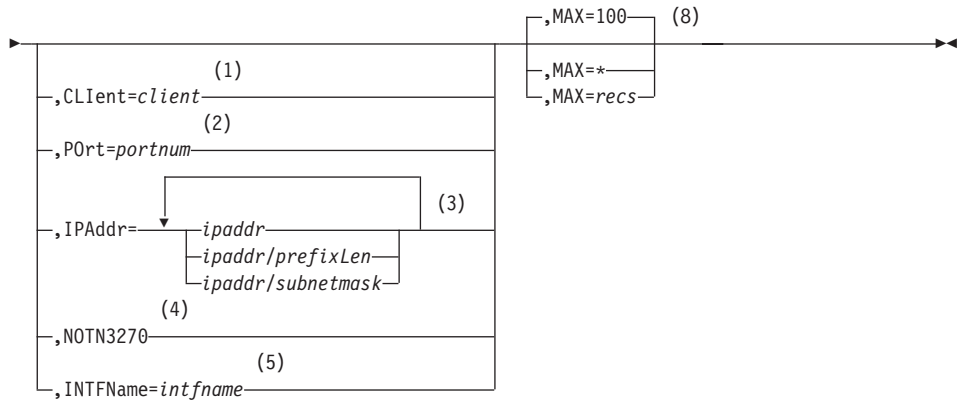
DISPLAY TCPIP NETSTAT

Request NETSTAT information:

► Display —TCPIP—, procname ,



IP MVS operator commands



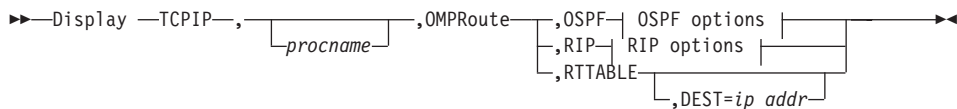
Notes:

- 1 The CLient is valid with ALLConn, BYTEinfo, CConn and SOCKets.
- 2 The PORT is only valid with ALLConn, CConn, SOCKets, VCRT and VDPT.
- 3 The IPAddr select string is valid only with ALLConn, CConn, ND, ROUTe, SOCKets, VCRT and VDPT.
- 4 The NOTN3270 is only valid with ALLConn, BYTEinfo, CConn and SOCKets.
- 5 The INTFName is only valid with DEvlinks.
- 6 The valid protocol values are TCP and UDP.
- 7 The valid protocol values are IP, ICMP, TCP, and UDP.
- 8 MAX limits the number of records displayed to the MVS operator's console.

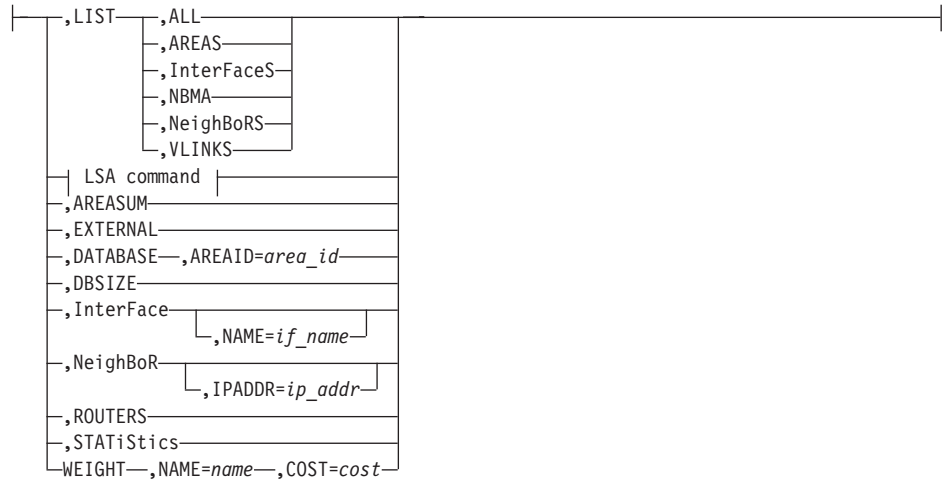
Note: The minimum abbreviation for each parameter is shown in uppercase letters.

DISPLAY TCPIP OMROUTE

Display OSPF and RIP configuration and state information:



OSPF options:



LSA command:

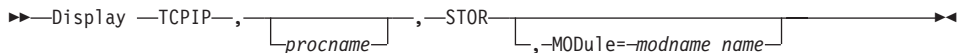


RIP options:



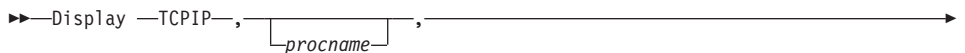
DISPLAY TCPIP STOR

Display TCP/IP storage usage information or the service level of a TCP/IP module:

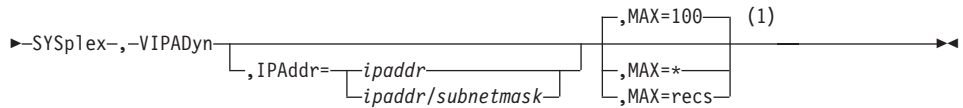


DISPLAY TCPIP SYSPLEX

Request SYSPLEX information:



IP MVS operator commands

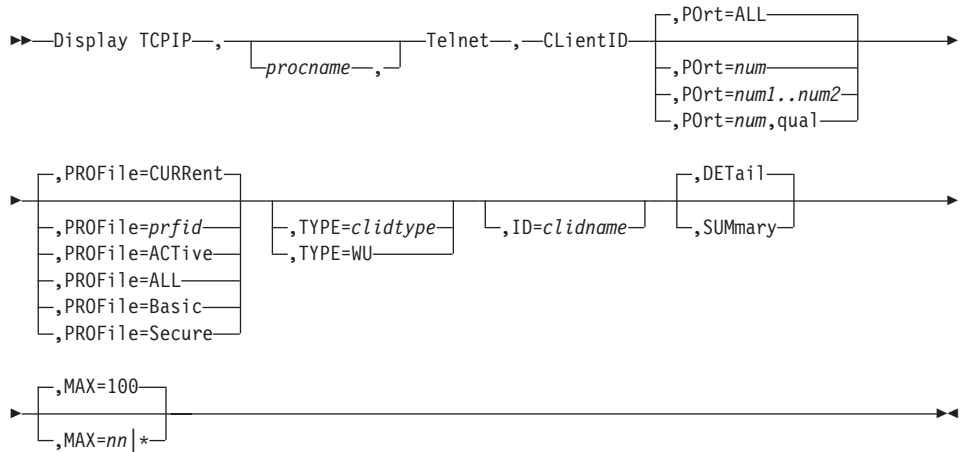


Notes:

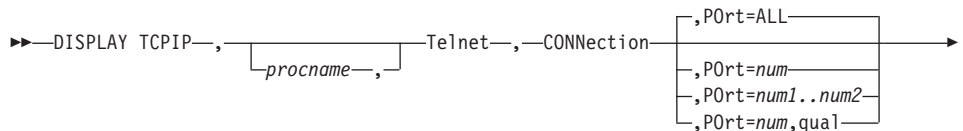
- 1 MAX limits the number of records displayed to the MVS operator's console.

DISPLAY TCPIP TELNET

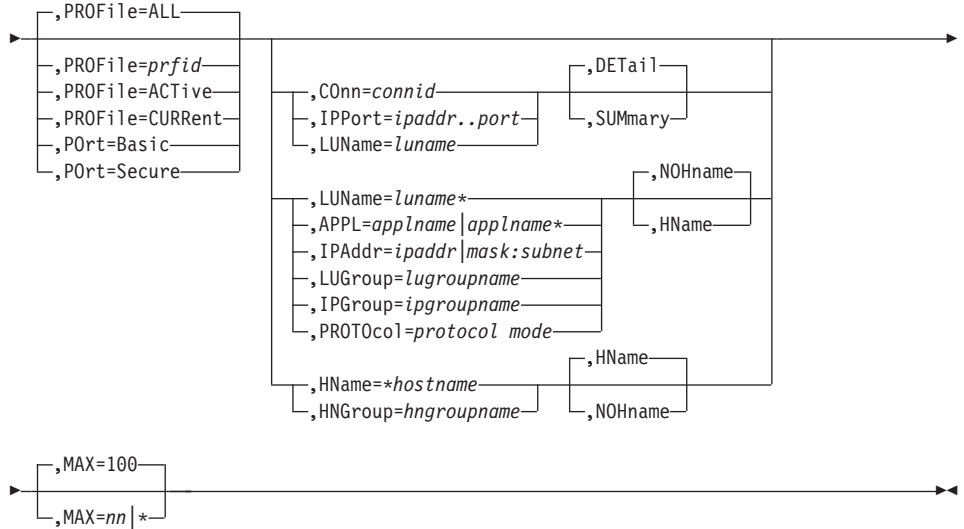
CLIENTID display command:



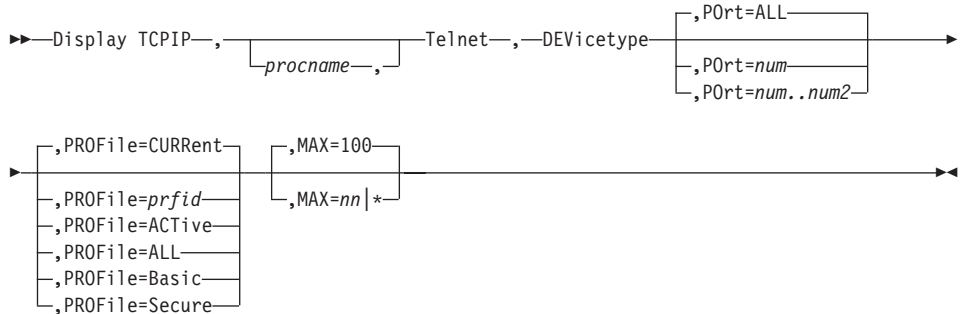
CONNECTION display command:



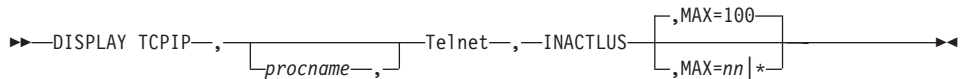
IP MVS operator commands



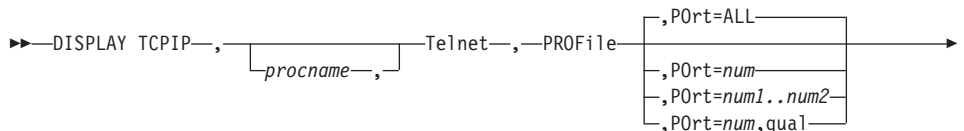
DEVICETYPE display command:



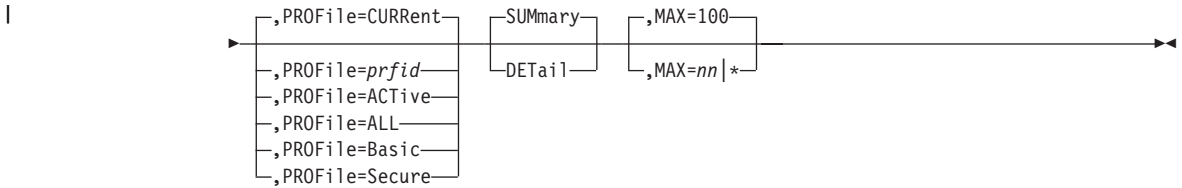
INACTLUS display command:



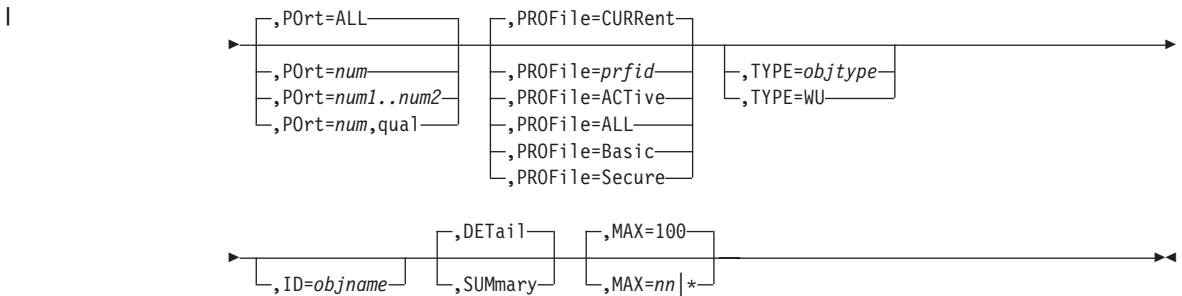
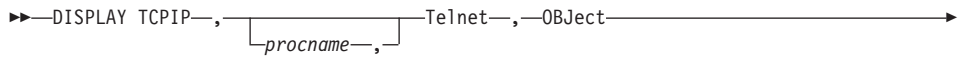
PROFILE display command:



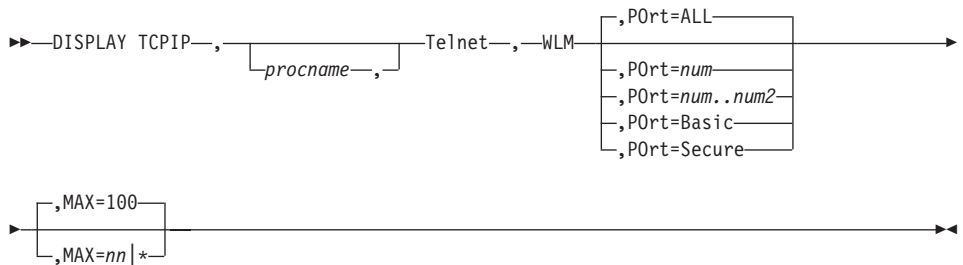
IP MVS operator commands



OBJECT display command:

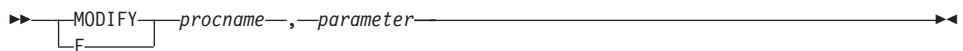


WLM display command:



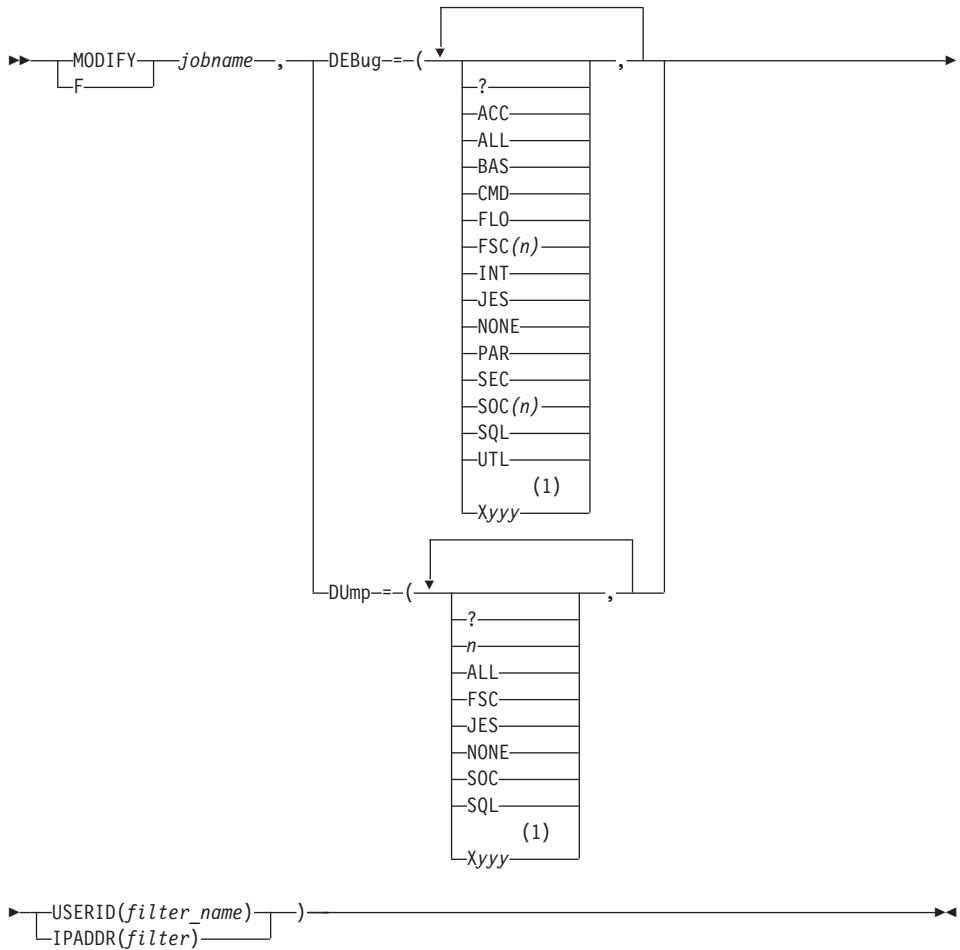
MODIFY TCP/IP command

Dynamically change characteristics of an active task:



FTP server

Start and stop tracing after initialization is complete:



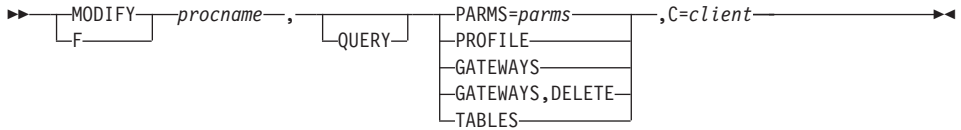
Notes:

- 1 Prepend any option *yyy* with X to turn off that trace.

IP MVS operator commands

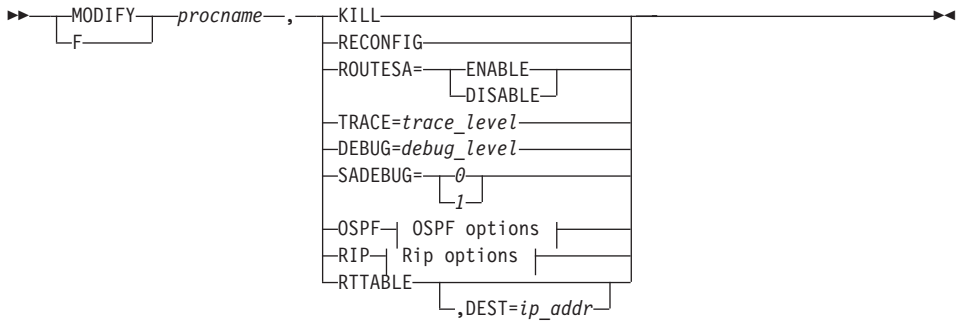
NCPRROUTE server

Pass parameters to the NCPRROUTE address space:

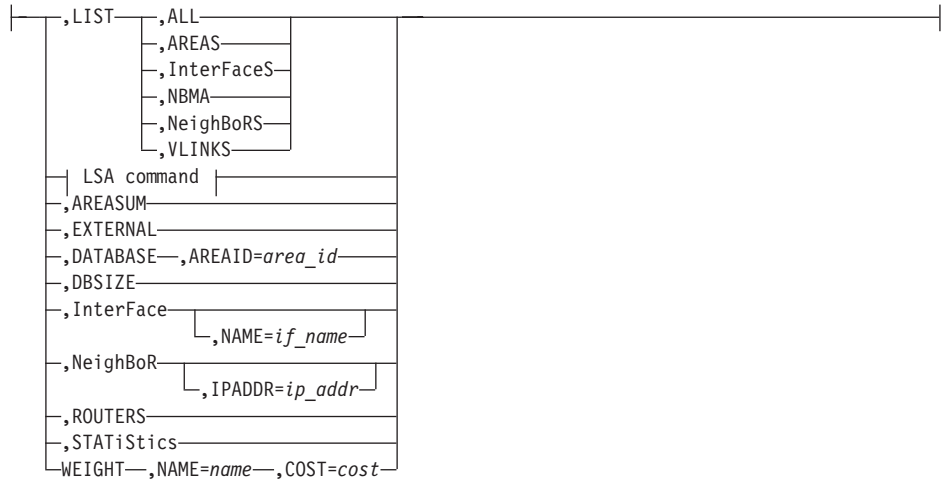


OMPROUTE

Control OMPROUTE from the operator's console:



OSPF options:



LSA command:

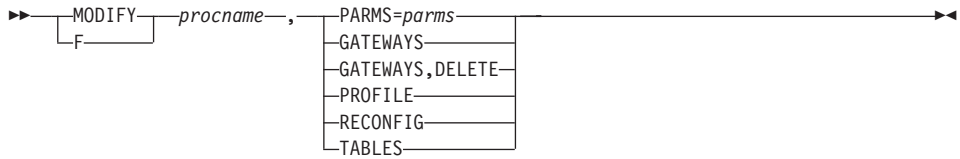


RIP options:



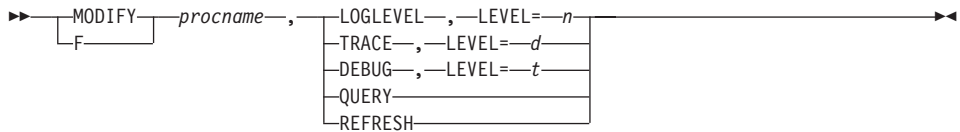
OROUTED server

Control most server functions from the operator's console:



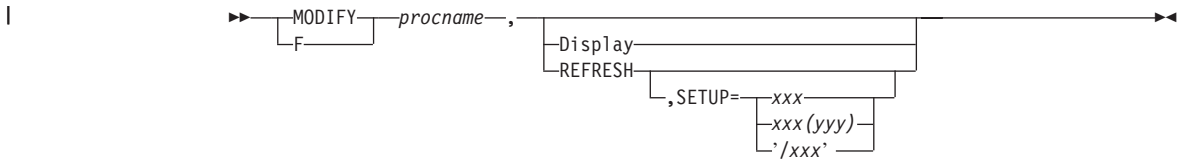
Policy Agent server

Control the Policy Agent functions from the operator's console using the MODIFY command:



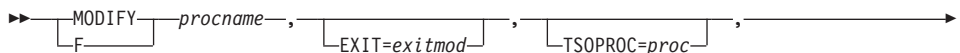
Resolver address space

Request the resolver address space to display or refresh its setup information:

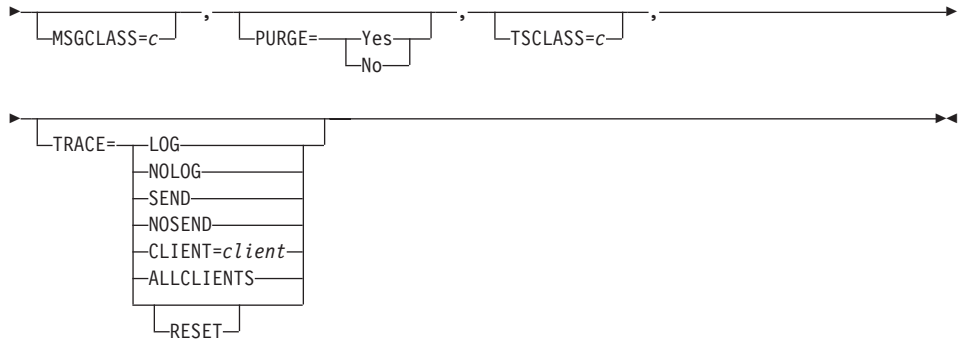


REXEC server

Change the parameters on the Remote Execution server:

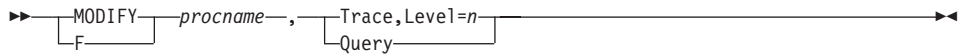


IP MVS operator commands



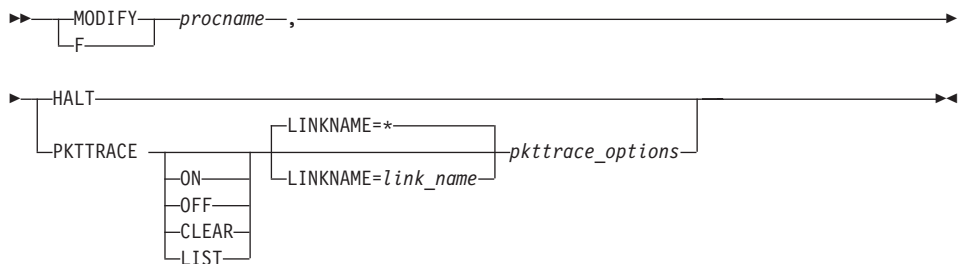
SLA subagent

Control the SLA subagent functions:



SNALINK LU0 server

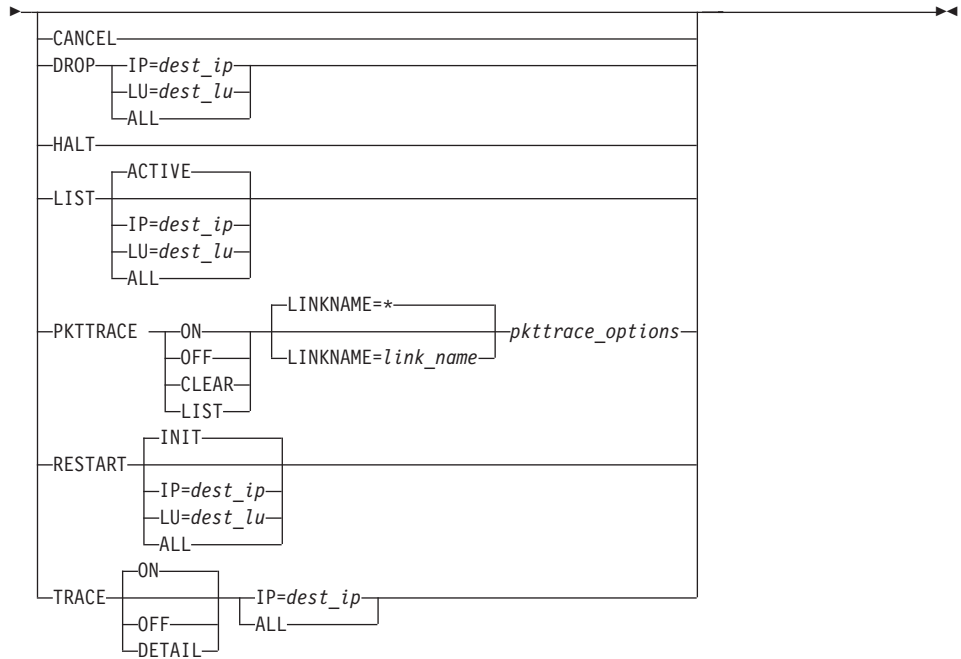
Halt the SNALINK LU0 interface and enable or disable tracing of IP packets or modify the selection criteria for selecting packets to be traced:



SNALINK LU6.2 server

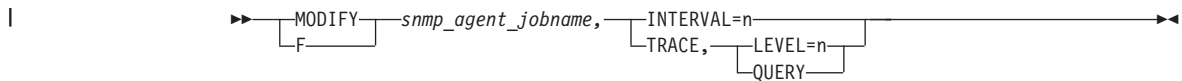
Stop or restart the SNALINK LU6.2 interface and control tracing:





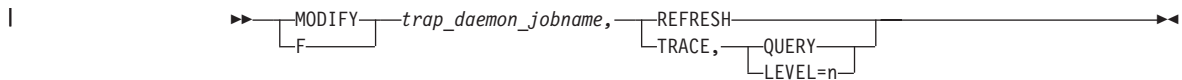
SNMP agent

Modify some SNMP agent initialization parameters:



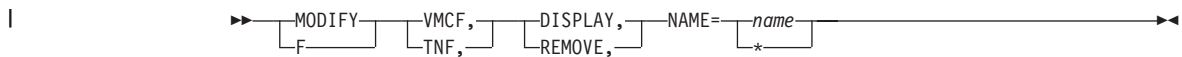
TRAPFWD

Modify the trap forwarder daemon:



VMCF and TNF

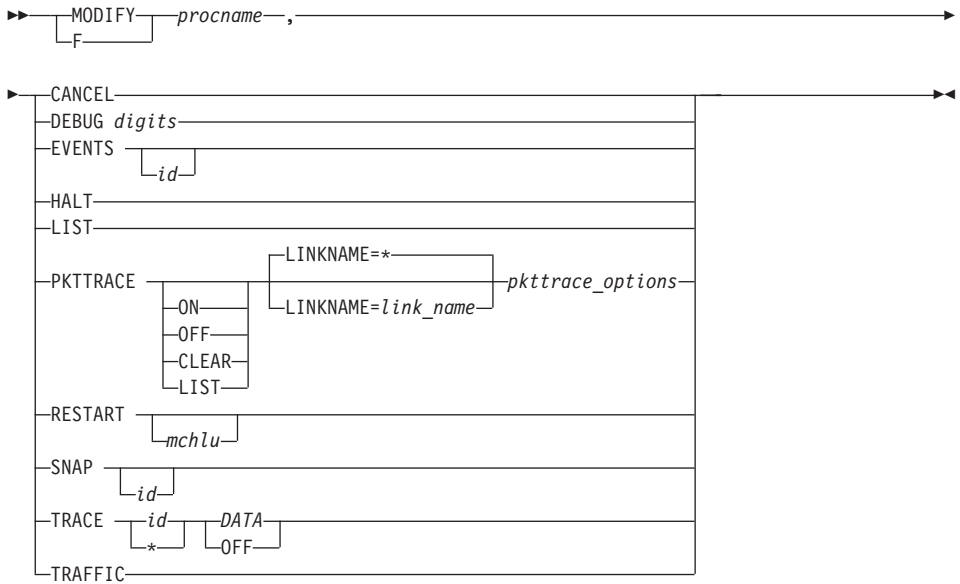
Display the names of current users of VMCF and TNF and remove names from the name lists:



IP MVS operator commands

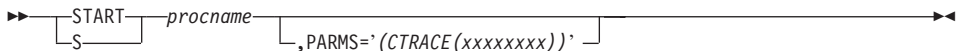
X.25 NPSI server

Pass parameters to the X.25 NPSI server:



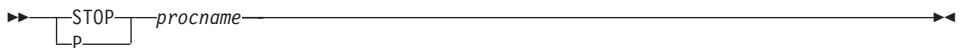
START TCPIP

Dynamically start a TCP/IP server or address space (including the TCP/IP address space):



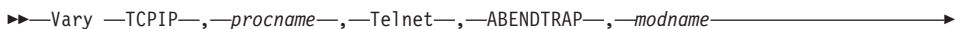
STOP TCPIP

Stop a TCP/IP server or address space (including the TCP/IP address space) that is in execution:



VARY TCPIP ABENDTRAP

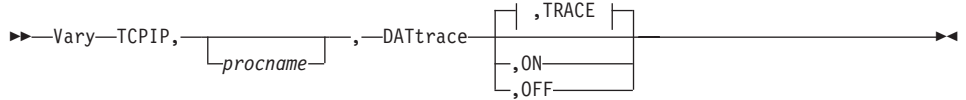
Obtain abend dumps based on a return code being set in a given module:



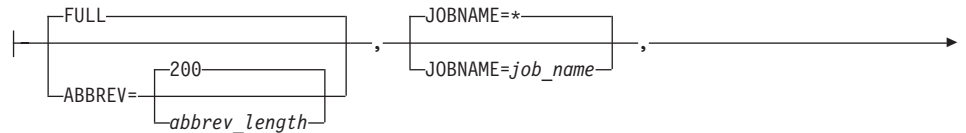


VARY TCPIP DATTRACE

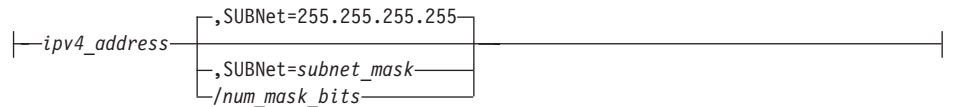
Trace socket data (transforms) into and out of the physical file structure (PFS):



TRACE:



IPv4_address:

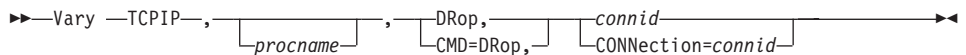


IPv6_address:



VARY TCPIP DROP

Drop a connection:



IP MVS operator commands

VARY TCPIP OBEYFILE

Change the TCP/IP configuration:

```
►► Vary -TCPIP-, [procname], Obeyfile, [datasetname]
                              [CMD=Obeyfile,] [DSN=datasetname]
```

VARY TCPIP PKTRACE

Set up packet tracing:

```
►► Vary -TCPIP-, [procname], -PKTtrace [Command]
```

Command:

```

|
|
|
|
|
|  , [LINKName=--*--] , ON (1) (2)
|  , [LINKName=--link_name--] , OFF
|  , [INTFName=--*--]
|  , [INTFName=--intf_name--]
|
|
|  , Packet Length
|  , Protocol Type
|  , Packet Dest Address
|  , Packet Source Port
|  , Packet Dest Port
|
|
```

Packet Length:

```

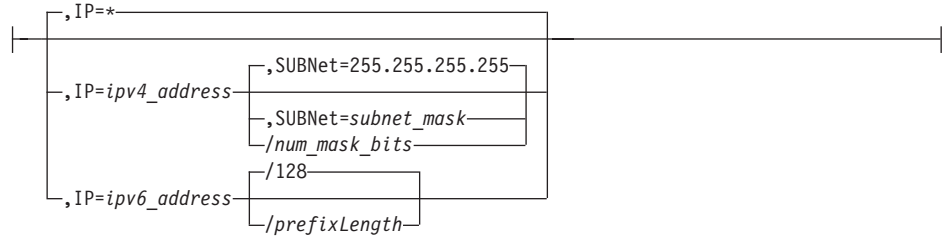
|
|  , FULL
|
|  , ABBREV [=200]
|           [=abbrev_length]
|
|
```

Protocol Type:

```

|
|  , PROT=*
|  , PROT=TCP
|  , PROT=UDP
|  , PROT=ICMP
|  , PROT=ICMPV6
|  , PROT=protocol_number
|
|
```

Packet Dest Address:



Packet Source Port:



Packet Dest Port:



Notes:

- 1 Each option can be specified only once. The order of options is not important.
- 2 The MVS TRACE command must also be issued for component SYSTCPDA to activate the packet trace. Refer to *z/OS Communications Server: IP Diagnosis* for details.

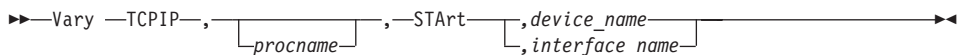
VARY TCPIP PURGECACHE

Delete the ARP cache entries for a link or neighbor entries for an interface:



VARY TCPIP START

Start a TCP/IP device or interface:



IP MVS operator commands

VARY TCPIP STOP

Stop a TCP/IP device or interface:

► VARY TCPIP, procname, STOP, device_name, interface_name

VARY TCPIP TELNET

Control TELNET:

► VARY TCPIP, procname, TELNET, DEBUG, OFF

ACT VARY command:

► VARY TCPIP, procname, TELNET, ACT, luname

INACT VARY command:

► VARY TCPIP, procname, TELNET, INACT, luname

QUIESCE VARY command:

► VARY TCPIP, procname, TELNET, QUIESCE,

,Port=ALL
,Port=num
,Port=num1..num2
,Port=num,qual
,Port=ALL
,Port=Secure
,Port=Basic

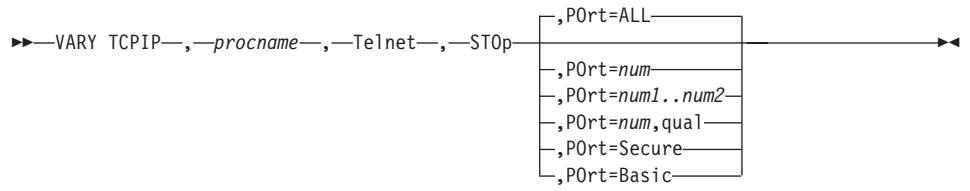
RESUME VARY command:

► VARY TCPIP, procname, TELNET, RESUME,

,Port=ALL
,Port=num
,Port=num1..num2
,Port=num,qual
,Port=Secure
,Port=Basic

STOP VARY command:

|



IP MVS operator commands

Chapter 2. Other IP commands, options, and subcommands

Table 1. IP commands, options, and subcommands

Command type	Reference
TSO Commands	Refer to <i>z/OS Communications Server: IP User's Guide and Commands</i> and <i>z/OS Communications Server: IP System Administrator's Commands</i> .
z/OS™ UNIX® Commands	Refer to <i>z/OS Communications Server: IP System Administrator's Commands</i> .
NetView® SNMP (SNMP) Command	Refer to <i>z/OS Communications Server: IP System Administrator's Commands</i> .
IPCS Subcommands for TCP/IP	Refer to <i>z/OS Communications Server: IP Diagnosis</i> .
CTRACE Command and Options for TCP/IP	Refer to <i>z/OS Communications Server: IP Diagnosis</i> .

Other IP commands, options, and subcommands

Part 2. VTAM commands

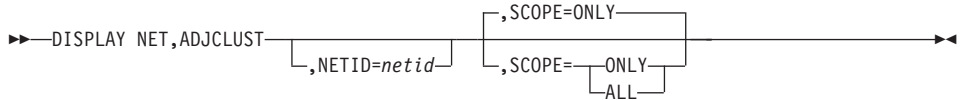
VTAM commands are listed in this section alphabetically. For more information on these commands, refer to *z/OS Communications Server: SNA Operation*.

VTAM commands

Chapter 3. Display commands

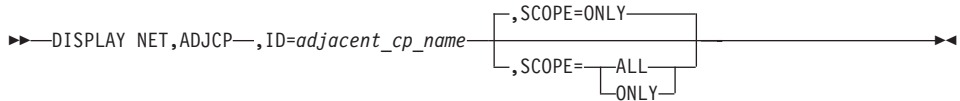
D ADJCLUST

Display the adjacent cluster (routing) tables and their entries in the order to be used for APPN searches:



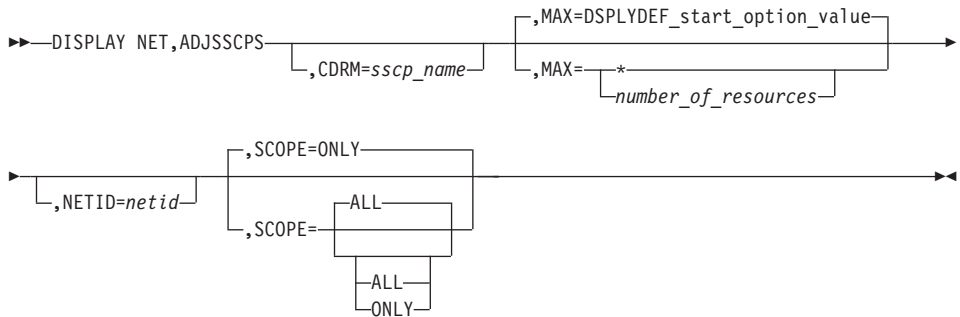
D ADJCP

Display the attributes of a specific adjacent node and the connections in which it is currently involved:

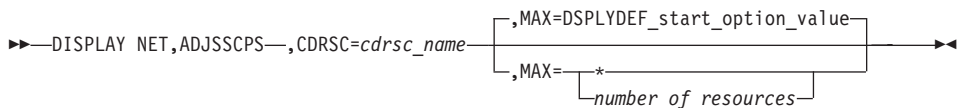


D ADJSSCPS

Display user-defined and dynamic adjacent SSCP tables:



Display adjacent SSCP table for specific cross-domain resource:



Display a specific list of adjacent CDRMs used for session requests:

Display commands

```
▶▶—DISPLAY NET,ADJSSCPS—,ADJLIST=list_name [ ,MAX=DSPLYDEF_start_option_value ] [ ,MAX=* [ number_of_resources ] ] ▶▶
```

Display all lists of adjacent CDRMs:

```
▶▶—DISPLAY NET,ADJSSCPS—,ADJLIST=* [ ,MAX=DSPLYDEF_start_option_value ] [ ,MAX=* [ number_of_resources ] ] ▶▶
```

D APING

Test whether a route to another LU 6.2 resource or control point is available and display performance information for the route if the resource supports an APING server:

```
▶▶—DISPLAY NET,APING—,ID=resource_name [ ,CONSEC=1 ] [ ,CONSEC=number_of_consecutive_packets ] [ ,ECHO=NO ] [ ,ECHO=YES ] [ ,ITER=2 ] [ ,ITER=number_of_send_and_receive_iterations ] [ ,LOGMODE=#INTER ] [ ,LOGMODE=logon_mode_name ] [ ,PASSWORD ] [ ,SIZE=100 ] [ ,SIZE=size_of_packet ] [ ,TP=APINGD ] [ ,TP=transaction_program_name ] [ ,USERID=userid ] ▶▶
```

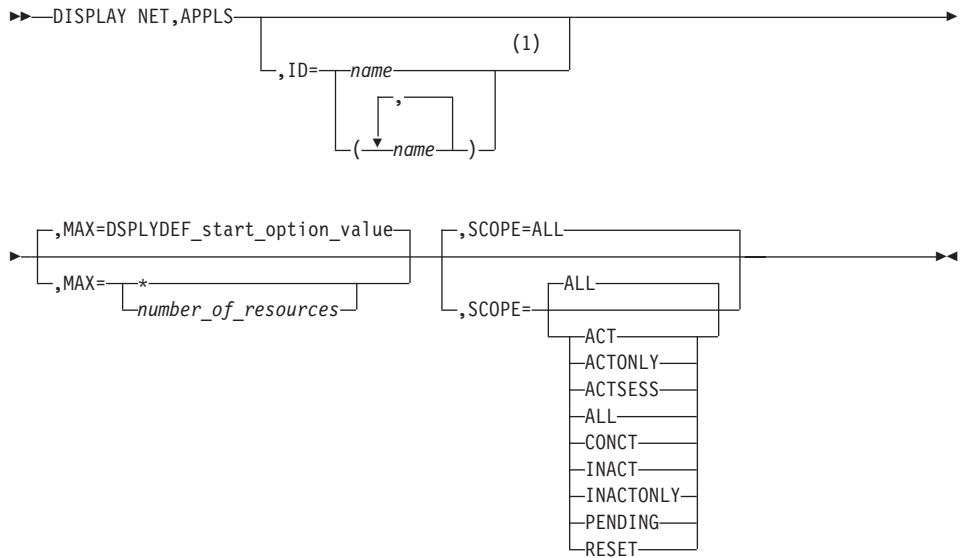
D APINGDTP

Display the number of APINGD transaction programs permitted to run concurrently for responding to APING requests from other nodes:

```
▶▶—DISPLAY NET,APINGDTP— ▶▶
```

D APPLS

Display the status of active application program major nodes in the domain along with their subordinate application program minor nodes:



Notes:

- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.

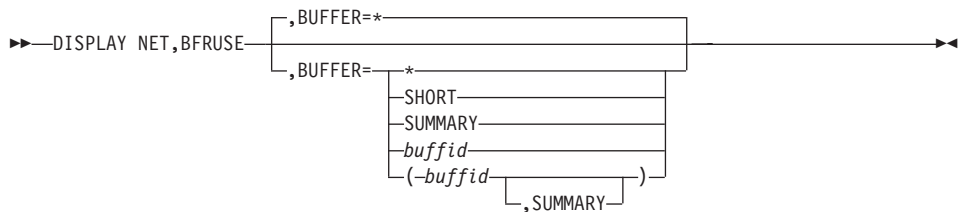
D APPNTOSA

Display the APPN-to-subarea class-of-service mapping table:



D BFRUSE

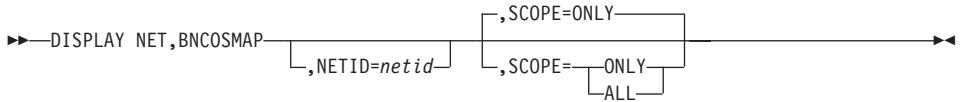
Display information about VTAM buffer use and storage usage summary information for VTAM modules:



Display commands

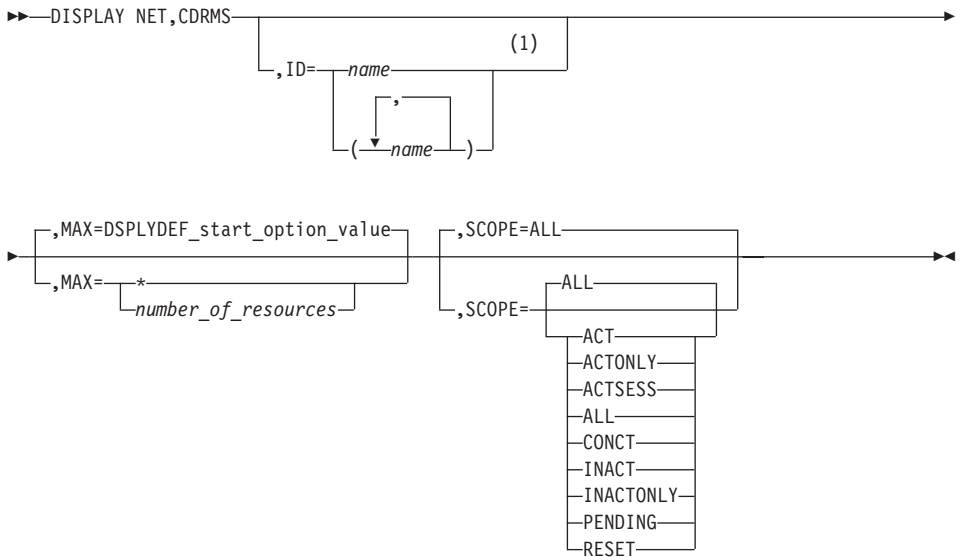
D BNCOSMAP

Display native and nonnative COS mappings defined for a border node:



D CDRMS

Display the status of active cross-domain resource manager (CDRM) major nodes and their subordinate minor nodes:

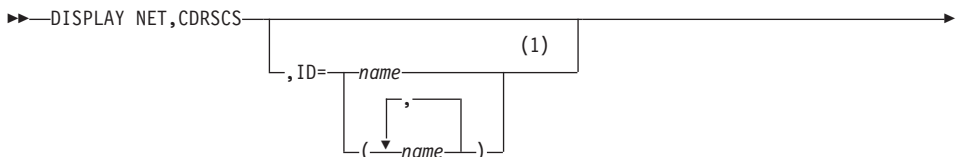


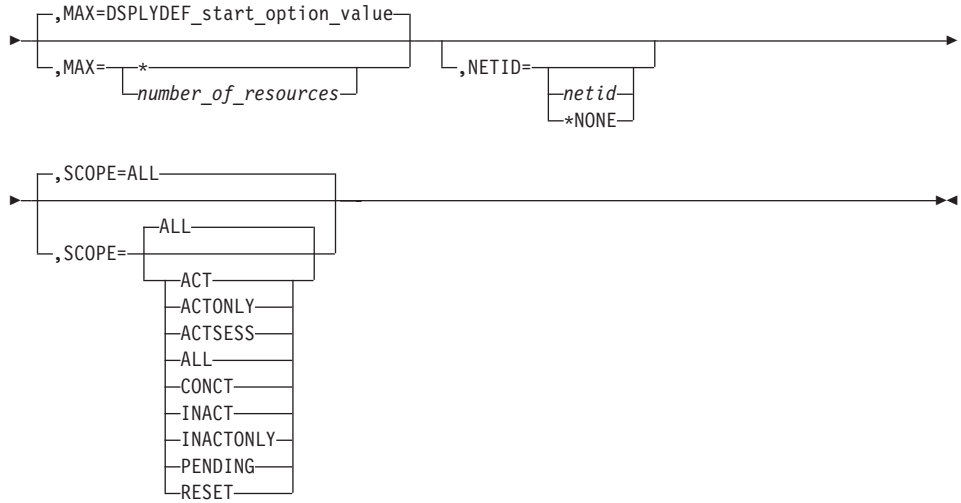
Notes:

- 1 Depending on the value of the `DSPLYWLD` start option, wildcard values can be used for this operand.

D CDRSCS

Display information about cross-domain resources, including independent LUs:



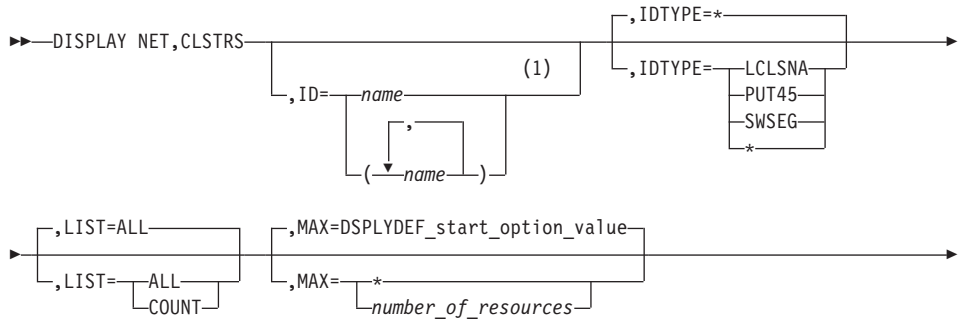


Notes:

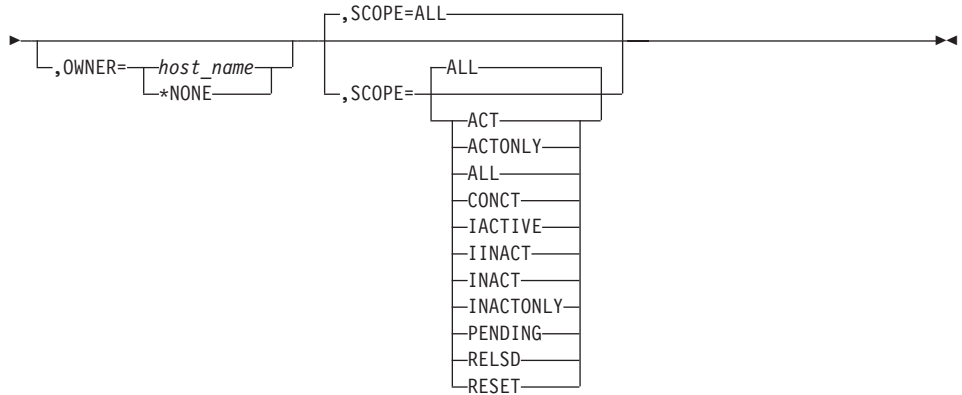
- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.

D CLSTRS

Display the status of physical units (PUs) subordinate to an NCP node, a local SNA node, or a switched subarea node:



Display commands

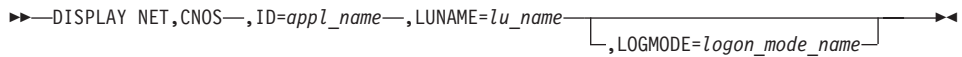


Notes:

- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.

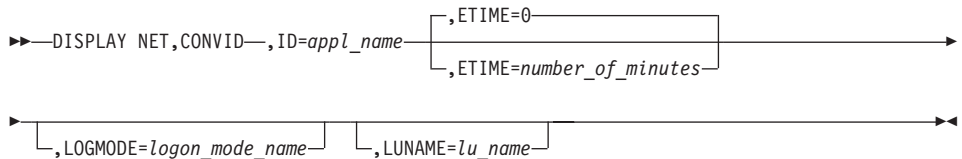
D CNOS

Display LU 6.2 information associated with an application program and a partner LU and logon mode:



D CONVID

Provide information about active conversations with the specified application program:



D COS

Display the class-of-service (COS) table name for a particular network or all networks associated with a specified PU type 4 or 5:

```

▶▶—DISPLAY NET,COS [ ,ID=pu_name ] [ ,NETID=*netid ] [ ,TYPE=SUBAREA ]
    
```

Display the APPN class-of-service (COS) table entries and the APPNCOS table used to create each entry:

```

▶▶—DISPLAY NET,COS,TYPE=APPN
    
```

D CPCP

Display detailed CP-CP session status:

```

▶▶—DISPLAY NET,CPCP [ ,ID=*.* ] [ ,LIST=ALL ]
    [ ,ID=adjacent_cp_name ] [ ,LIST=NN ]
    [ ,MAX=DSPLYDEF_start_option_value ] [ ,SCOPE=ALL ]
    [ ,MAX=*number_of_adjacent_CP ] [ ,SCOPE=ACT ]
    [ ,SCOPE=ALL ]
    [ ,SCOPE=PENDING ]
    [ ,SCOPE=INACT ]
    
```

Notes:

- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.
- 2 Since an end node will never have a CP-CP session with another end node, LIST=EN is not valid if this command is issued from an end node. In this case, the LIST operand is not necessary because the output for LIST=ALL and LIST=NN will be identical.

D CSM

Monitor the use of storage managed by the communications storage manager (CSM):

```

▶▶—DISPLAY NET,CSM [ ,OWNERID=ALL ]
    [ ,OWNERID=ownerid ]
    
```

Display commands

D DIRECTORY

Display information about a resource:

```
▶▶—DISPLAY NET,DIRECTRY—,ID=name—  
    ┌,SCOPE=ONLY—  
    └,SCOPE=—  
        ┌ALL—  
        └ONLY—  
          └NSEARCH—
```

Display a resource name in any network:

```
▶▶—DISPLAY NET,DIRECTRY—,ID=*.name—  
    ┌,MAX=DSPLYDEF_start_option_value—  
    └,MAX=*—  
        └number_of_resources—  
  
▶▶—,SCOPE=ONLY—
```

D DISK

Provide information about an IBM 3720 or 3745 Communication Controller's disk contents:

```
▶▶—DISPLAY NET,DISK—,ID=ncp_name—
```

D DLURS

Display all DLURs for which this host acts as dependent LU server (DLUS):

```
▶▶—DISPLAY NET,DLURS—
```

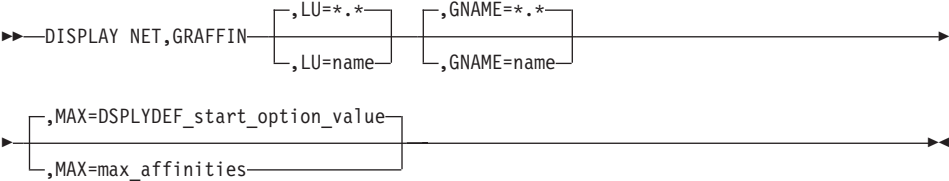
D EXIT

Display the name, exit level, module name, and status of installation-wide exit routines:

```
▶▶—DISPLAY NET,EXIT—  
    ┌,ID=*—  
    └,ID=*—  
        └exit_name—  
    ┌,MAX=DSPLYDEF_start_option_value—  
    └,MAX=*—  
        └number_of_resources—
```

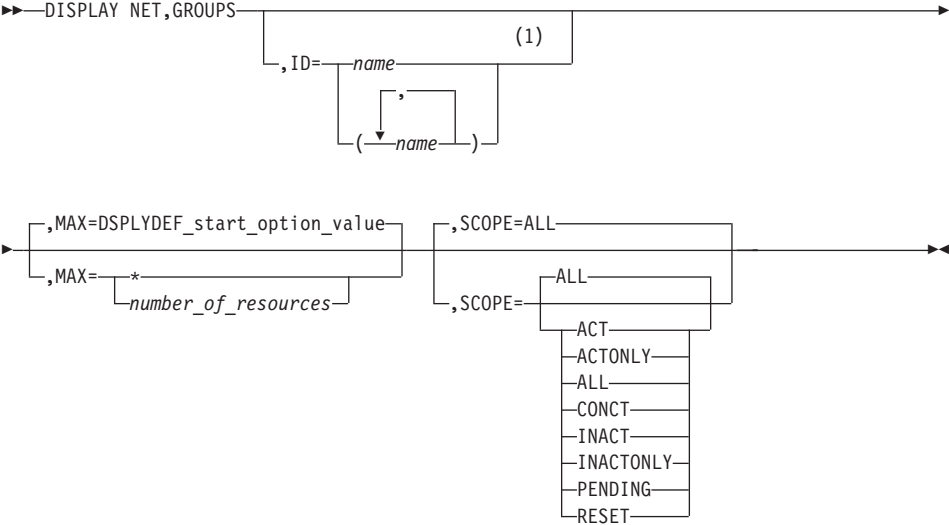
D GRAFFIN

Display affinity information for generic resources:



D GROUPS

Provide information about line groups:



Notes:

- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.

D ID

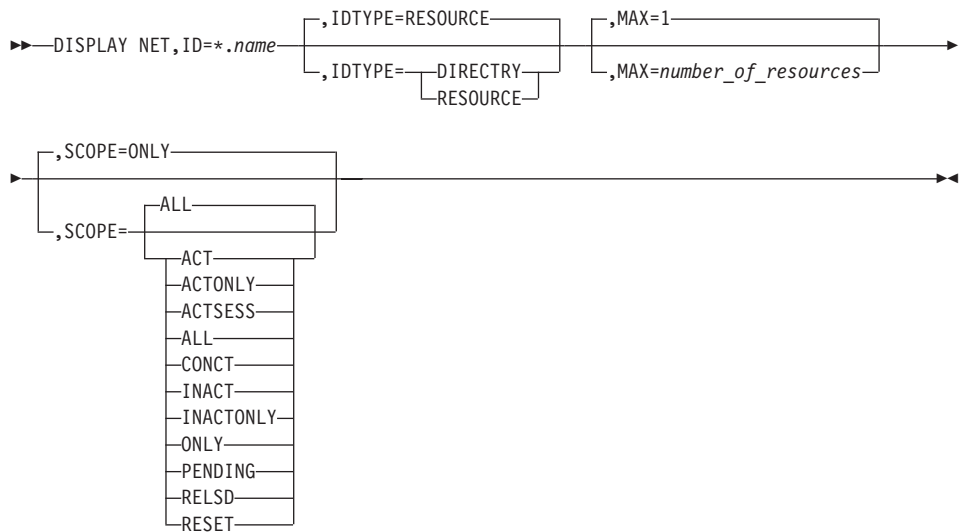
Display a resource:

Display commands

1



Display a resource name in any network:



Display a resource name using an IP address:

```
▶▶—DISPLAY NET, ID=ipaddress, IDTYPE=IPADDR—▶▶ (1)
```

Notes:

- 1 The ID type of IPADDR is not related to the IPADDR start option.

D INOPDUMP

Determine the global status for INOPDUMP:

```
▶▶—DISPLAY NET, INOPDUMP—▶▶
```

D LINES

Display the status of lines and channel links in the domain:

```
▶▶—DISPLAY NET, LINES—▶▶ (1)
    , ID=name
        , LIST=ALL
        , LIST=ALL
        , LIST=COUNT
        , MAX=DSPLYDEF_start_option_value
        , MAX=number_of_resources
        , OWNER=host_name
        , OWNER=*NONE
        , SCOPE=ALL
        , SCOPE=ALL
        , SCOPE=ACT
        , SCOPE=ACTONLY
        , SCOPE=ALL
        , SCOPE=CONCT
        , SCOPE=IACTIVE
        , SCOPE=IINACT
        , SCOPE=INACT
        , SCOPE=INACTONLY
        , SCOPE=PENDING
        , SCOPE=RESET
        , USE=DEFINED
        , USE=SPARE
```

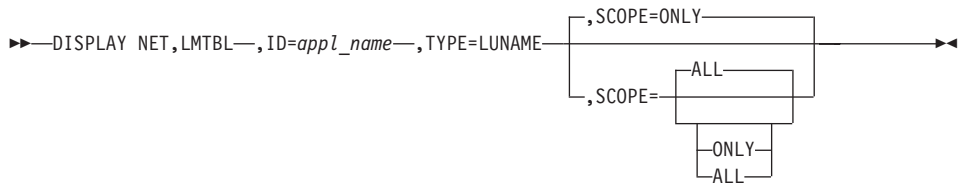
Notes:

- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.

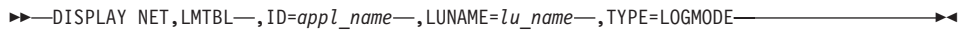
Display commands

D LMTBL

Display partner LUs in LU-mode table:

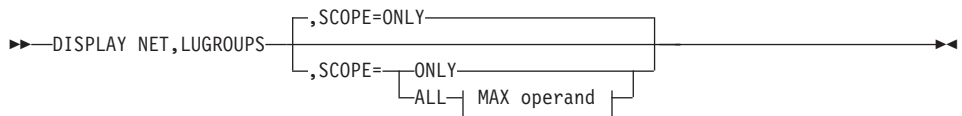


Display logon mode names in LU-mode table:



D LUGROUPS

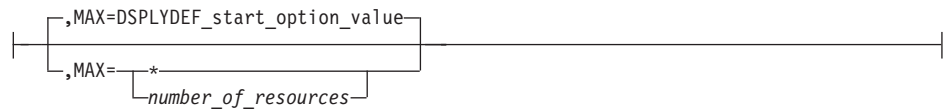
Display all LUGROUP major nodes:



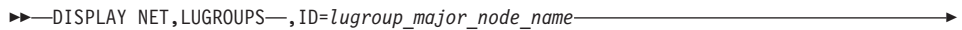
MAX operand:



MAX operand



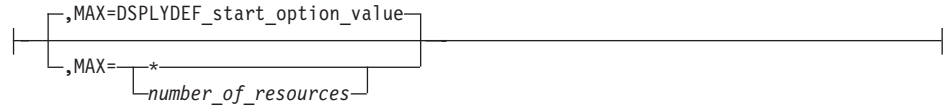
Display a specific LUGROUP major node:



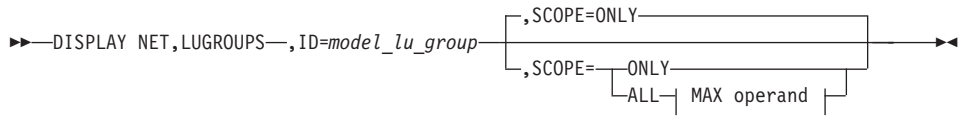
MAX operand:



MAX operand



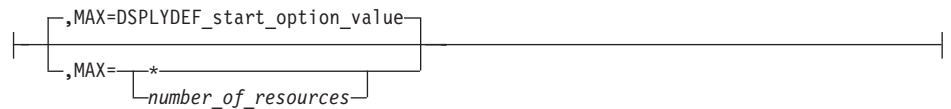
Display a model LU group:



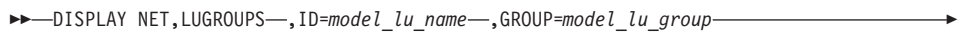
MAX operand:



MAX operand



Display a model LU:

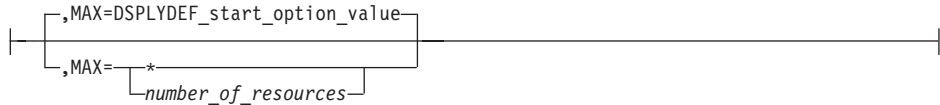


MAX operand:



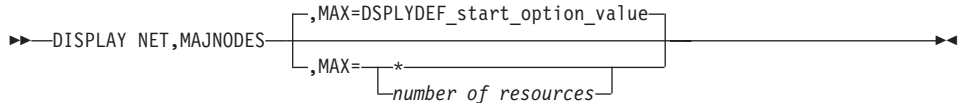
MAX operand

Display commands



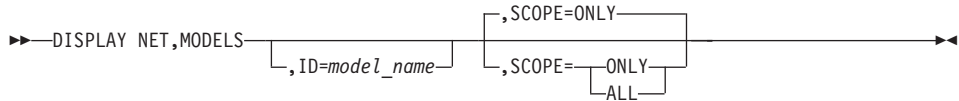
D MAJNODES

Display the status of all active major nodes in the domain:



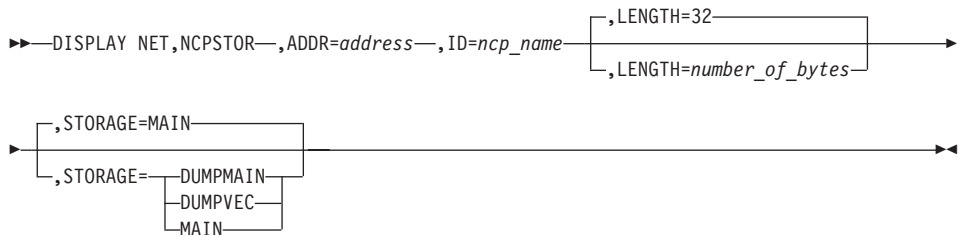
D MODELS

Provide information about model resources, excluding model applications:



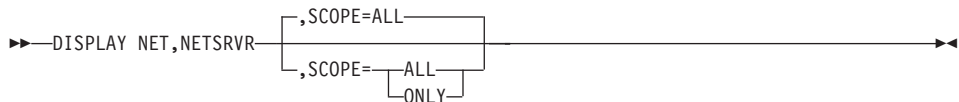
D NCPSTOR

Display either the storage contents of a communication controller running an NCP, or an NCP dump stored in an IBM 3720 or 3745 Communication Controller:



D NETSRVR

Display information about network node servers:



D PATHS

Display dial-out path information about a switched physical unit:

►►—DISPLAY NET,PATHS—,ID=*switched_pu_name*—►►

D PATHTAB

Display the status of explicit routes and their associated virtual routes for this host:

►►—DISPLAY NET,PATHTAB—►►

┌,ADJSUB=*subarea_number*┐
└,DESTSUB=*subarea_number*┘

►►—,MAX=DSPLYDEF_start_option_value—►►

┌,MAX=*┐
└number_of_resources┘

D PENDING

Display information about resources in the domain that are in a “pending” state:

►►—DISPLAY NET,PENDING—►►

┌,ID=*name*┐
└┌,*name*┐
└(*name*)┘┘

►►—,MAX=DSPLYDEF_start_option_value—►►

┌,MAX=*┐
└number_of_resources┘

D ROUTE

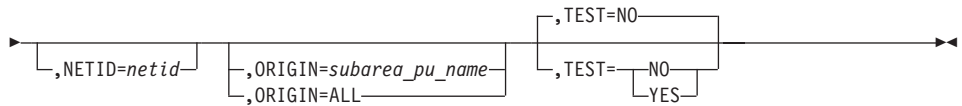
Display the status of routes:

►►—DISPLAY NET,ROUTE—►►

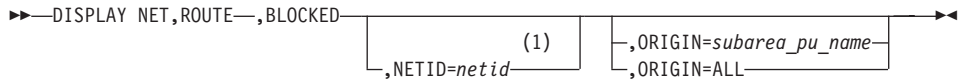
┌,DESTSUB=*subarea_number*┐

┌,ER=ALL┐
└,COSNAME=*name*┘
┌,ER=ALL┐
└,ER=*er_number*┘
└,VR=*vr_number*┘

Display commands



Display blocked virtual routes:



Notes:

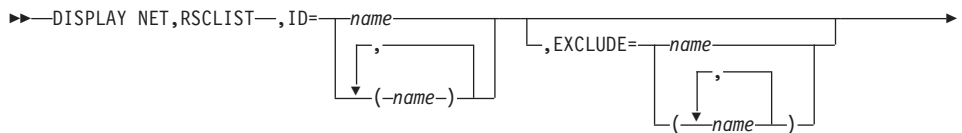
- 1 When the BLOCKED operand is specified, the NETID of the host where the command was entered is assumed, and specification of another NETID is not permitted.

Display held virtual routes:



D RSCLIST

Display information about resources whose names match a particular pattern:

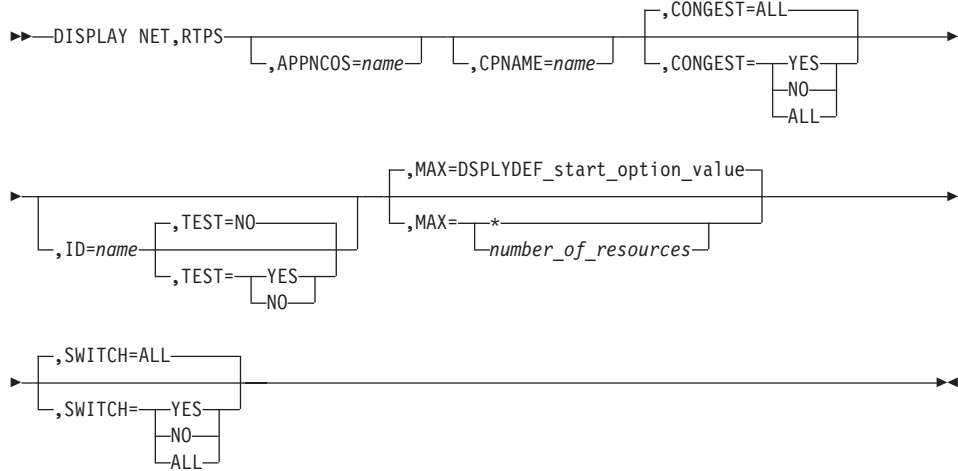




D RTPS

Display information concerning HPR pipes:

Display commands



D SAMAP

Display the subarea mapping table from an ICN host:

►► `DISPLAY NET,SAMAP` ►►

D SATOAPPN

Display the subarea-to-APPN class-of-service mapping table:

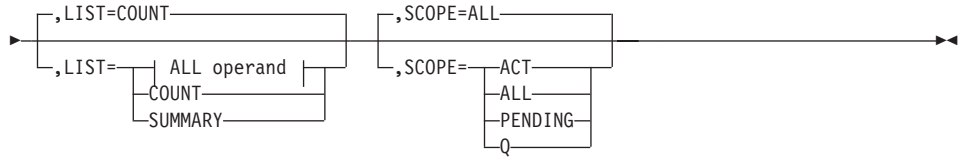
►► `DISPLAY NET,SATOAPPN` ►►

D SESSIONS

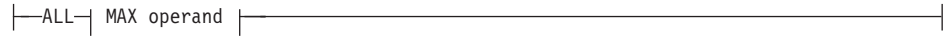
Display all sessions:

►► `DISPLAY NET,SESSIONS` ►►

<code>,LU1=lu_name</code>	<code>,LU2=lu_name</code>
<code>,LU2=lu_name</code>	<code>,LU1=lu_name</code>
<code>,PLU=plu_name</code>	<code>,SLU=slu_name</code>
<code>,SLU=slu_name</code>	<code>,PLU=plu_name</code>



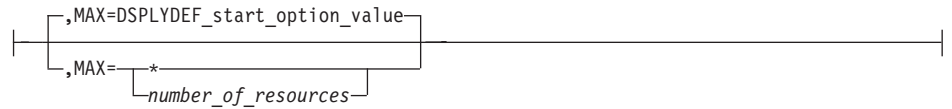
ALL operand



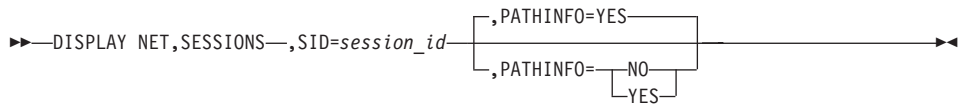
MAX operand:



MAX operand

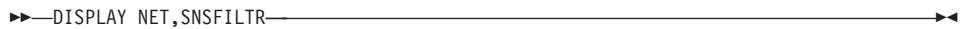


Display a specific session:



D SNSFILTR

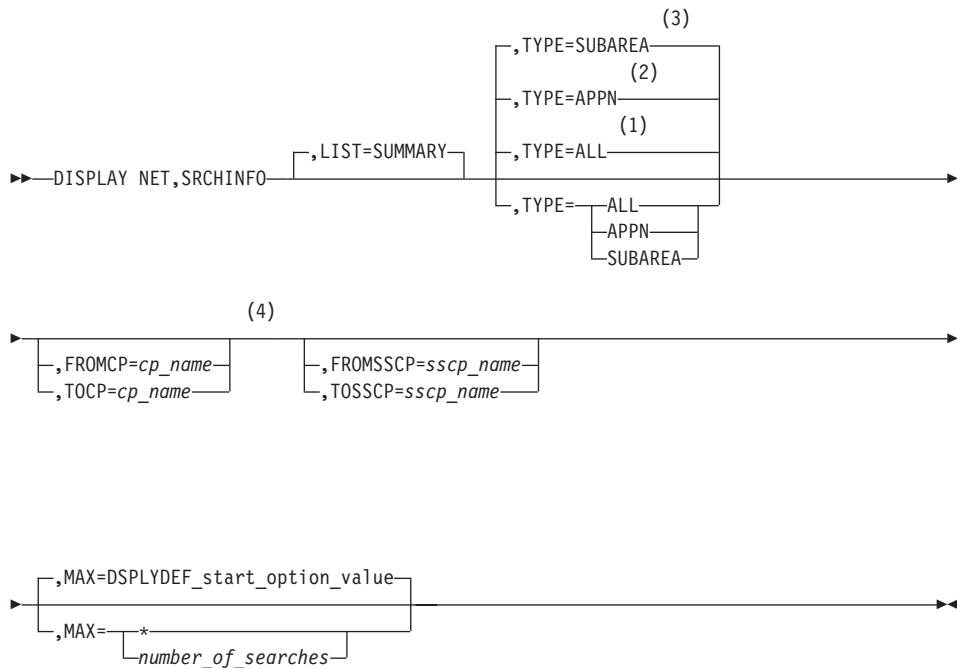
Display the current active SAW sense filter:



D SRCHINFO

Display summary information about outstanding subarea and APPN searches:

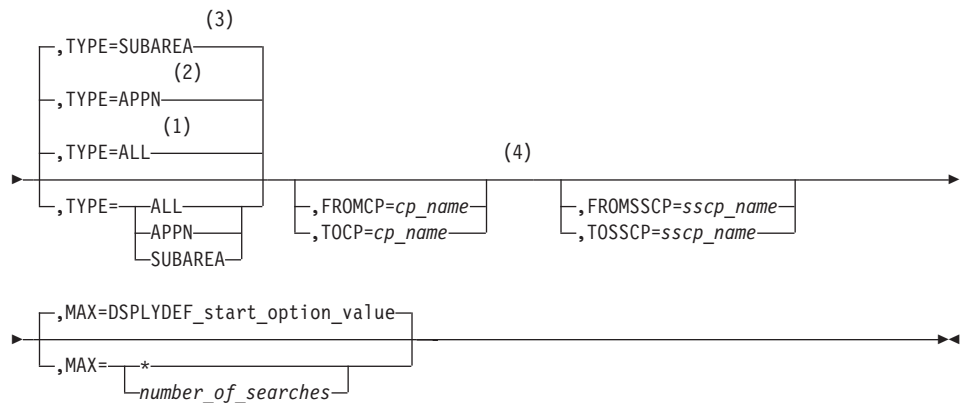
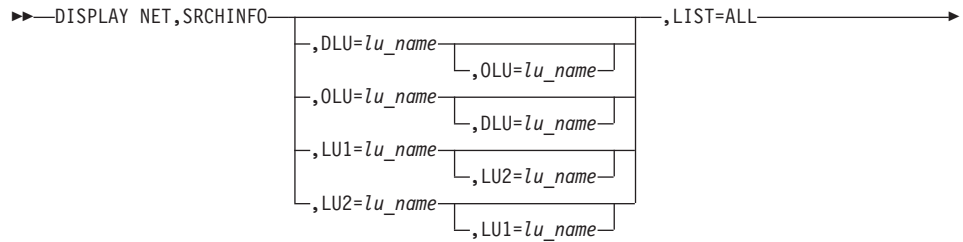
Display commands



Notes:

- 1 TYPE=ALL is the default when the HOSTSA and NODETYPE start options are specified.
- 2 TYPE=APPN is the default when the NODETYPE start option is specified without the HOSTSA start option.
- 3 TYPE=SUBAREA is the default when the HOSTSA start option is specified without the NODETYPE start option.
- 4 These operands are valid with TYPE=APPN or TYPE=ALL.

Display detailed information about outstanding subarea and APPN searches:

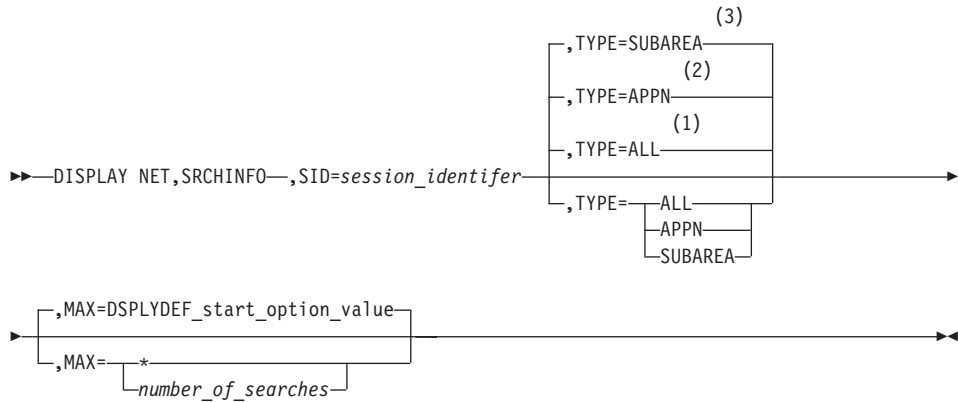


Notes:

- 1 TYPE=ALL is the default when the HOSTSA and NODETYPE start options are specified.
- 2 TYPE=APPN is the default when the NODETYPE start option is specified without the HOSTSA start option.
- 3 TYPE=SUBAREA is the default when the HOSTSA start option is specified without the NODETYPE start option.
- 4 These operands are valid with TYPE=APPN or TYPE=ALL.

Display search information about a specific search request:

Display commands

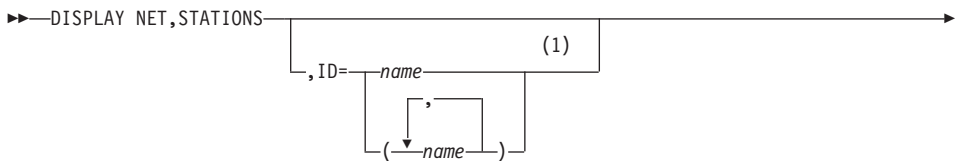


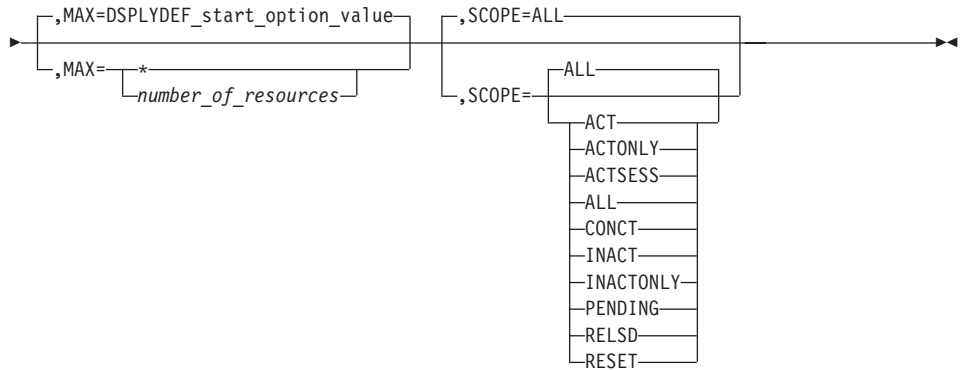
Notes:

- 1 TYPE=ALL is the default when the HOSTSA and NODETYPE start options are specified.
- 2 TYPE=APPN is the default when the NODETYPE start option is specified without the HOSTSA start option.
- 3 TYPE=SUBAREA is the default when the HOSTSA start option is specified without the NODETYPE start option.

D STATIONS

Display the status of all cross-subarea link stations for active major nodes:



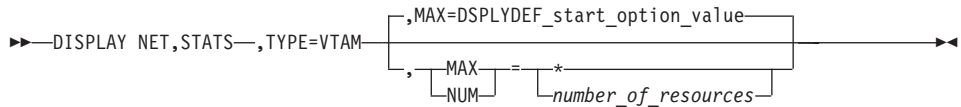


Notes:

- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.

D STATS

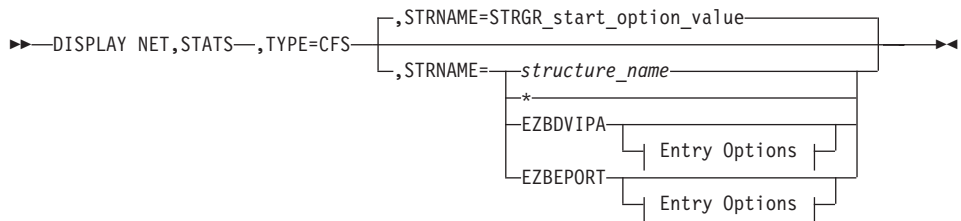
Display resource statistics:



Display data compression statistics:

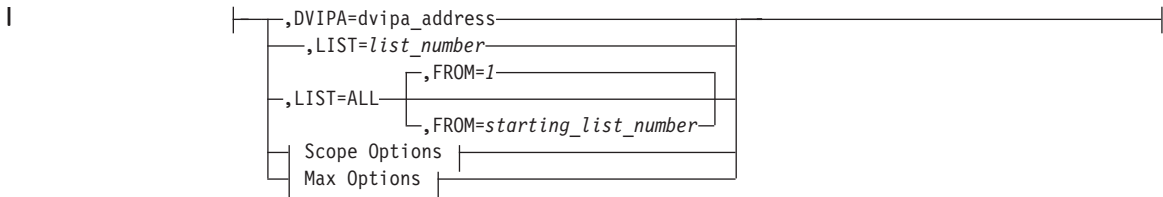


Display coupling facility structure statistics:



Entry Options:

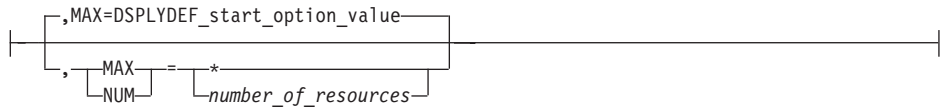
Display commands



Scope Options:

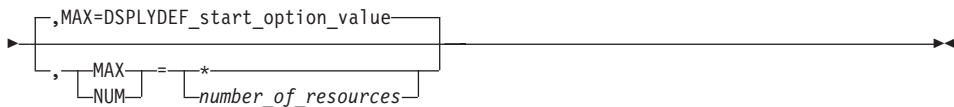
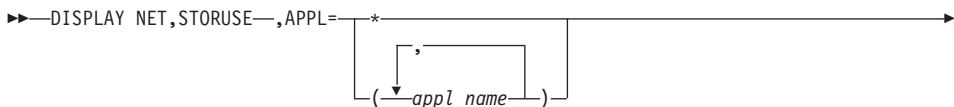


Max Options:

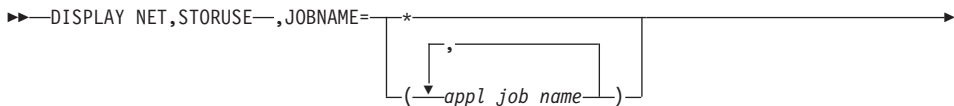


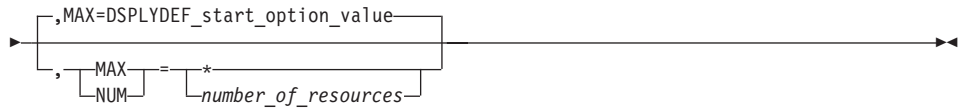
D STORUSE

Display storage usage for applications:

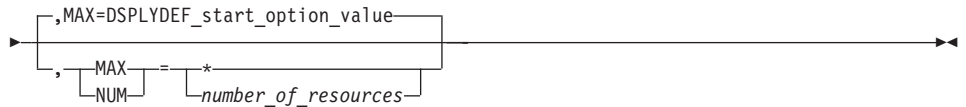
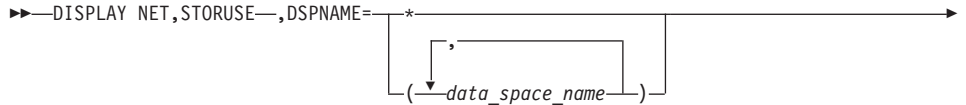


Display storage usage for application jobs:

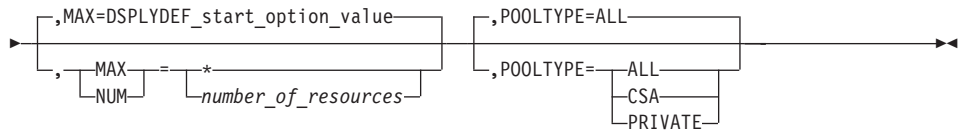
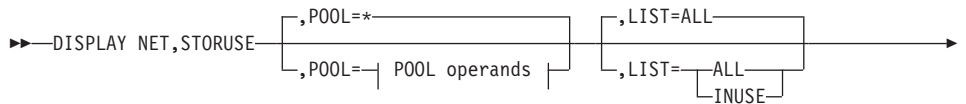




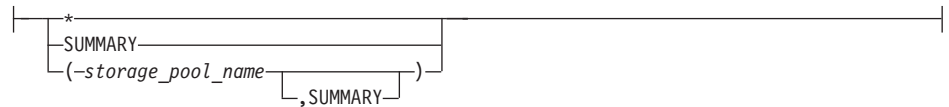
Display storage usage for data spaces:



Display storage usage for storage pools:

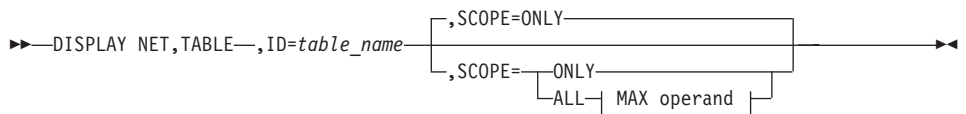


POOL operands:



D TABLE

Display the table type and the number of resources that are associated with the table (use count) and identify the users of a table:

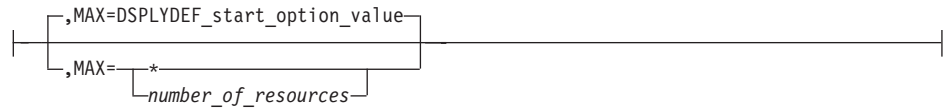


Display commands

MAX operand:

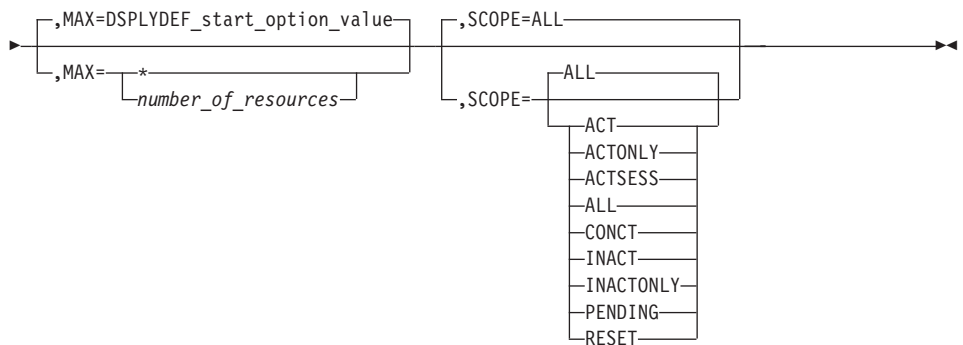
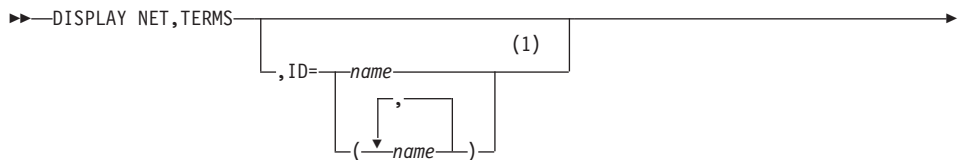


MAX operand



D TERMS

Display the status of device-type logical units (terminals) that are in active major nodes:

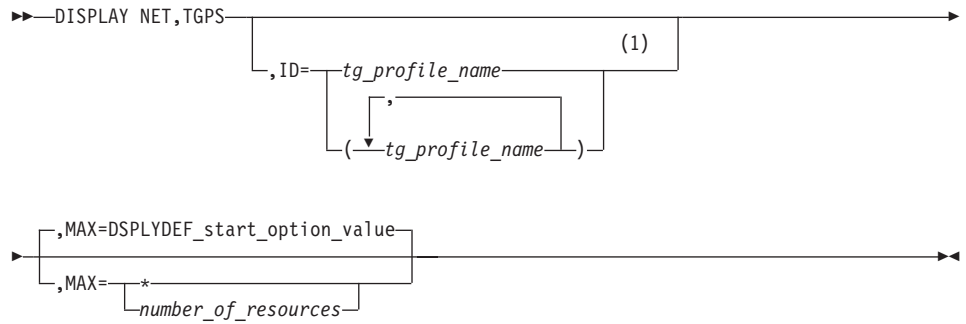


Notes:

- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.

D TGPS

Display the currently defined TG profiles by name, along with the transmission group characteristics that they represent:



Notes:

- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.

D TNSTAT

Display the current state of global and TRLE tuning statistics, and the CNSL and TIME values. If SMF is not in the system, this will also be indicated.

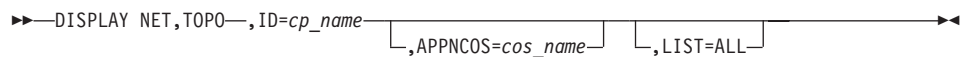


D TOPO

Display a summary of the topology database:



Display a specific node:

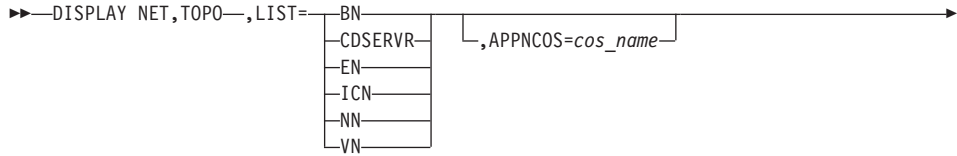


Display adjacent nodes:



Display all nodes of a specific type:

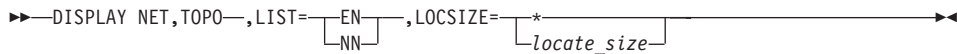
Display commands



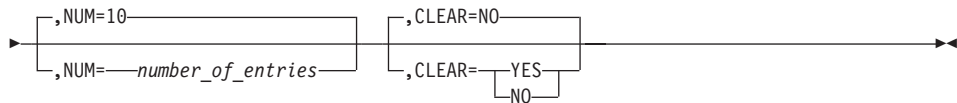
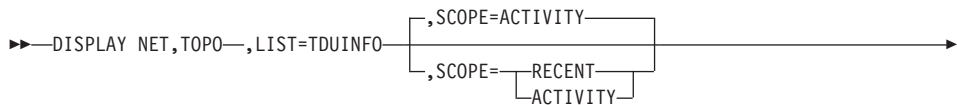
Notes:

- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.

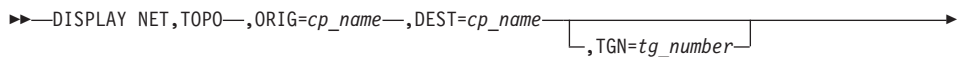
Display all nodes with a specific locsize:



Display TDU statistics information:



Display a specific TG or TGs:

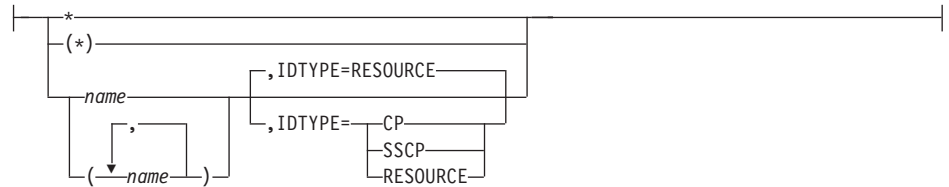


D TRACES

Display the status of BUF, GPT, IO, LINE, SIT, STATE, and TG traces:

▶▶—DISPLAY NET,TRACES—,TYPE=NODES—,ID=—| ID values |—————▶▶

ID values:



Display the status of a communication network management trace:

▶▶—DISPLAY NET,TRACES—,TYPE=CNM—————▶▶

Display the status of the user Exit buffer trace:

▶▶—DISPLAY NET,TRACES—,TYPE=EXIT—,ID=—| ISTECAAA |
 | ISTECCCS |
 | ISTECDM |—————▶▶

Display the status of a module trace:

▶▶—DISPLAY NET,TRACES—,TYPE=MODULE—————▶▶

Display the status of a network controller line trace:

▶▶—DISPLAY NET,TRACES—,TYPE=NETCTRL—,ID=3710_pu_name—————▶▶

Display the status of an SMS (buffer use) trace:

▶▶—DISPLAY NET,TRACES—,TYPE=SMS—| ,ID=VTAMBUF |—————▶▶

Display the status of a resource state trace:

▶▶—DISPLAY NET,TRACES—,TYPE=STATE—————▶▶

Display the status of a TSO user trace:

Display commands

```

▶▶—DISPLAY NET,TRACES—,TYPE=TSO—,ID= *————▶▶
      |
      | (*)
      | (1)
      | user_id
      |   |
      |   | ,
      |   | (user_id)
      |___|
  
```

Notes:

- 1 Depending on the value of the DSPLYWLD start option, wildcard values can be used for this operand.

Display the status of the VTAM internal trace:

```

▶▶—DISPLAY NET,TRACES—,TYPE=VTAM————▶▶
  
```

Display the status of all active traces:

```

▶▶—DISPLAY NET,TRACES—,TYPE=ALL————▶▶
  
```

D TRL

Display the entries in the TRL major node:

```

▶▶—DISPLAY NET,TRL—,CONTROL=ALL————▶▶
      |
      | ,CONTROL=
      | | ALL
      | | MPC
      | | TCP
      | |   |
      | |   | ,ULPID=name
      | |___|
      |___|
      | XCF
      |___|
  
```

```

▶▶—,MAX=DSPLYDEF_start_option_value————▶▶
      |
      | ,MAX= *
      |   |
      |   | number_of_resources
      |___|
  
```

Display information about a specific user-defined TRLE:

```

▶▶—DISPLAY NET,TRL—,TRLE=trl_entry_name————▶▶
  
```

Display information about a dynamic XCF TRLE:

```

▶▶—DISPLAY NET,TRL—,XCFCP=cp_name————▶▶
  
```

D TSOUSER

Display the status of a TSO user ID:

▶▶—DISPLAY NET,TSOUSER—,ID=*user_id*—▶▶

D USERVAR

Display all USERVARs:

▶▶—DISPLAY NET,USERVAR—
 [,MAX=DSPLYDEF_start_option_value]
 [,MAX=*]
 [number_of_resources]

Display a specific USERVAR:

▶▶—DISPLAY NET,USERVAR—,ID=*uservar_name*—▶▶

D VTAMOPTS

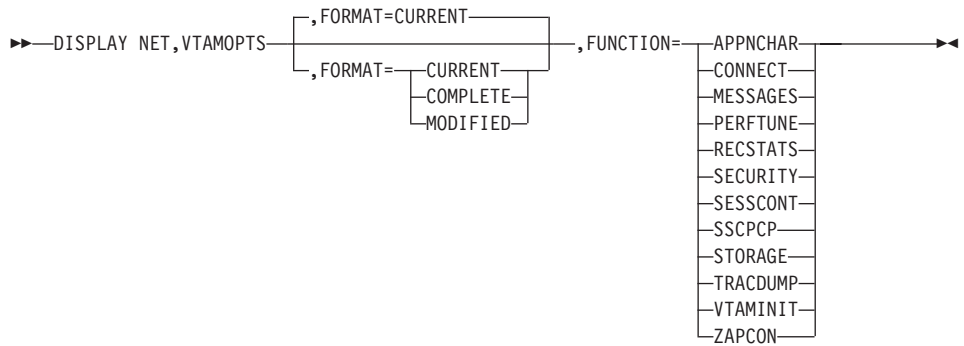
Display selected start options:

▶▶—DISPLAY NET,VTAMOPTS—
 [,FORMAT=CURRENT]
 [,FORMAT=—CURRENT—
 —COMPLETE—
 —MODIFIED—]

▶▶ [,OPTION=*]
 [,OPTION=—*—
 —(*)—
 —option—
 —,—
 —(option)—]▶▶

Display a group of related start options:

Display commands



D VTAMSTOR

Display storage contents associated with a storage address:

▶—DISPLAY NET,VTAMSTOR—,ADDRESS=*storage_address*—▶

▶

┌,LENGTH=32┐
└,LENGTH=*decimal_number_of_bytes*┐
└,XLENGTH=*hex_number_of_bytes*┐

▶

Display storage associated with a module:

▶—DISPLAY NET,VTAMSTOR—,MODULE=*module_name*—▶

Display storage associated with a network address:

▶—DISPLAY NET,VTAMSTOR—,NETADDR=(*NETADDR operands* |) ┌,NETID=*network_id*┐▶

NETADDR operands:

┌*subarea_address*┐, *element_address* ┌,X┐
└┐ └,D┐
└┐ └,X┐

Display storage associated with a resource name:

▶—DISPLAY NET,VTAMSTOR—,RESOURCE=*resource_name*—▶

Chapter 4. Halt commands

HALT (Z)

Request a normal halt of VTAM without disrupting active LU-LU sessions:



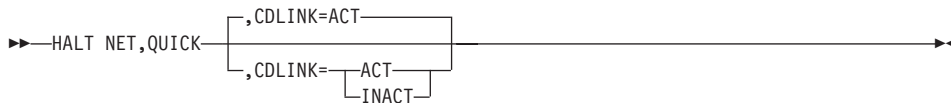
Z CANCEL

Request a halt of VTAM viaabend:



Z QUICK

Request a halt of VTAM disrupting active LU-LU sessions:



Halt commands

Chapter 5. Modify commands

F ALSLIST

Add an entry to an adjacent link station list:

```
▶▶—MODIFY procname,ALSLIST—,ACTION=ADD—,ID=—*—————▶▶
      └──cdrsc_major_node──┘
      └──cdrsc_name──┘
▶▶,—NEWALS=adjacent_link_station_name————▶▶
```

Delete an entry from an adjacent link station list:

```
▶▶—MODIFY procname,ALSLIST—,ACTION=DELETE—,ID=—*—————▶▶
      └──cdrsc_major_node──┘
      └──cdrsc_name──┘
▶▶,—OLDALS=adjacent_link_station_name————▶▶
```

Replace an entry in an adjacent link station list:

```
▶▶—MODIFY procname,ALSLIST—,ACTION=REPLACE—,ID=—*—————▶▶
      └──cdrsc_major_node──┘
      └──cdrsc_name──┘
▶▶,—NEWALS=adjacent_link_station_name—,OLDALS=adjacent_link_station_name————▶▶
```

Create a dynamic CDRSC and add entry in adjacent link station list:

```
▶▶—MODIFY procname,ALSLIST—,ACTION=CREATE—,ID=cdrsc_name————▶▶
▶▶,—NEWALS=adjacent_link_station_name————▶▶
```

F APINGDTP

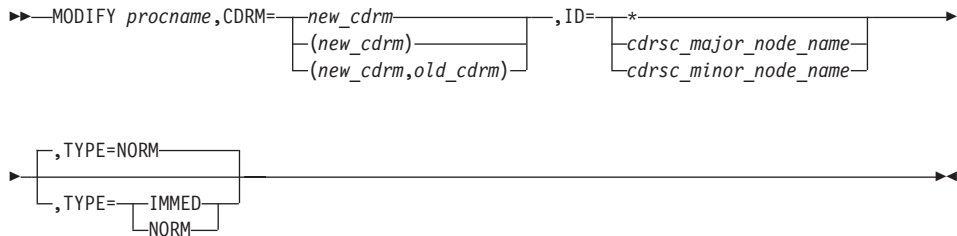
Change the number of APINGD transaction programs permitted to run concurrently for responding to APING requests from other nodes:

```
▶▶—MODIFY procname,APINGDTP—,INSTANCE=—UNLIMITED————▶▶
      └──value──┘
```

Modify commands

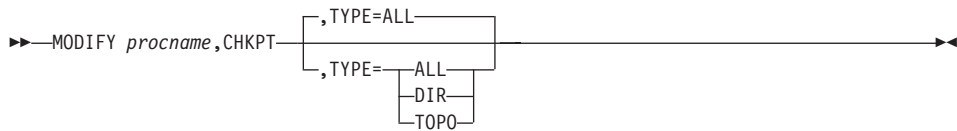
F CDRM

Change the owner (external CDRM) of a particular cross-domain resource (CDRSC) or set of CDRSCs:



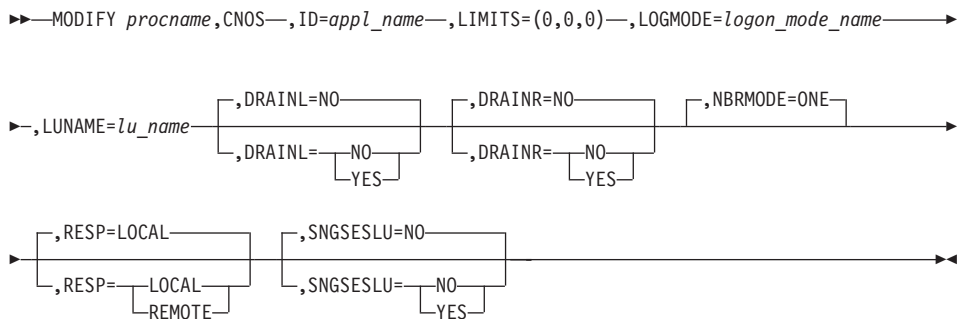
F CHKPT

Save a copy of the directory database or the topology database (or both) to a checkpoint data set:



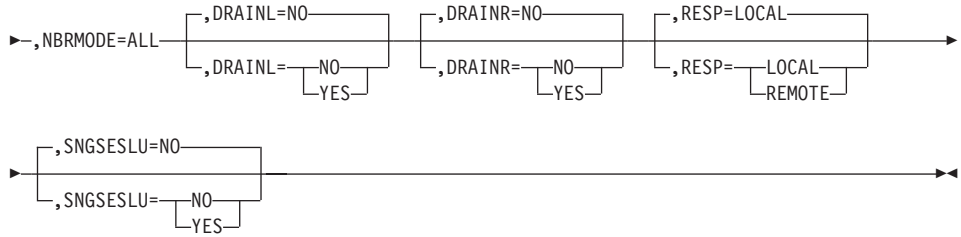
F CNOS

Set session limits to zero for one logon mode:



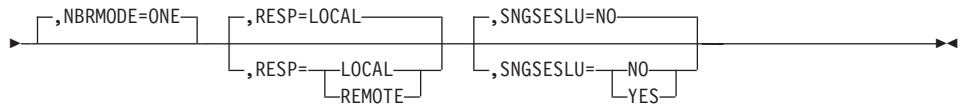
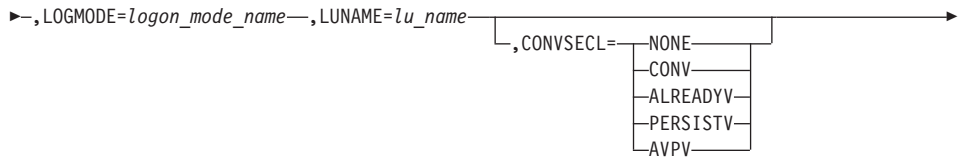
Set session limits to zero for all logon modes:





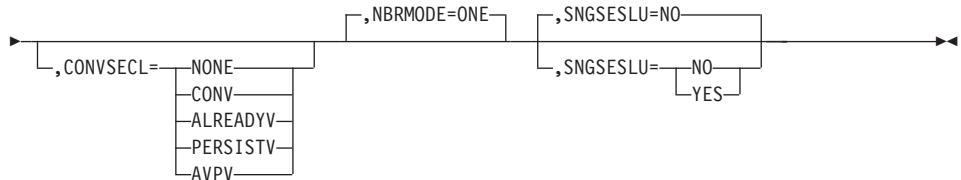
Set session limits to nonzero:

►► `MODIFY procname,CNOS—,ID=appl_name—,LIMITS=(sesslim,minwinl,minwinr)—————`



Use existing session limits:

►► `MODIFY procname,CNOS—,ID=appl_name—,LOGMODE=logon_mode_name—,LUNAME=lu_name—————`



F COMPRESS

Change the compression levels set by the APPL definition statement:

►► `MODIFY procname,COMPRESS—,ID=appl_name—————`

Modify commands

► `,CMPAPPLI=input_limit`
 └─ `,CMPAPPLO=output_limit`
 └─ `,CMPAPPLI=input_limit,CMPAPPLO=output_limit`

Change the compression level set by start option:

► `MODIFY procname,COMPRESS—,CMPVTAM=overall_limit`

F CSALIMIT

Dynamically change the amount of common service area (CSA) storage that VTAM is allowed to use:

► `MODIFY procname,CSALIMIT=` `value` `,OPTION=TOTAL`
 └─ `(value` `,F`) `,OPTION=` `BELOW`
 └─ `TOTAL`

F CSDUMP

Dump the current address space and VIT data space, setup a trigger that will invoke a dump of the current address space and VIT data space when a particular sense code and when a particular message is issued:

► `MODIFY procname,CSDUMP` `,SENSE=sense_code` `,RU=ru_code`

► `,MESSAGE=` `message_id_number`
 └─ `(message_id_number,message_value_field)`

► `,MATCHLIM=matchlim_value`

F CSM

Dynamically change the amount of storage used by the communications storage manager (CSM) or activate changes made to the CSM parmlib member without requiring an IPL:

► `MODIFY procname,CSM` `,ECSA=maxecsa` `,FIXED=maxfix`

F DEFAULTS

Modify the DLOGMOD value for a resource:

```
►►—MODIFY procname,DEFAULTS—,ID=resource_name—,DLOGMOD=logon_mode_name—►►
```

Change the delay timer for disconnection of a switched PU:

```
►►—MODIFY procname,DEFAULTS—,ID=resource_name—,DISCTIM=time_period—►►
```

F DEFINE

Set session limit to zero:

```
►►—MODIFY procname,DEFINE—,ID=appl_name—,DLIMITS=(0,0,0)——►►
```

```
►—,LOGMODE=logon_mode_name—,LUNAME=lu_name—,AUTOSES=number_of_winner_sessions——►
```

```
►—,DELETE=NALLOW——►►
►—,DELETE=ALLOW——►►
►—,DELETE=NALLOW——►►
►—,DDRAINL=ALLOW——►►
►—,DDRAINL=NALLOW——►►
►—,DRESPL=ALLOW——►►
►—,DRESPL=NALLOW——►►
```

Set session limits to nonzero:

```
►►—MODIFY procname,DEFINE—,ID=appl_name—,DLIMITS=(dseslim,dminwinl,dminwinr)——►►
```

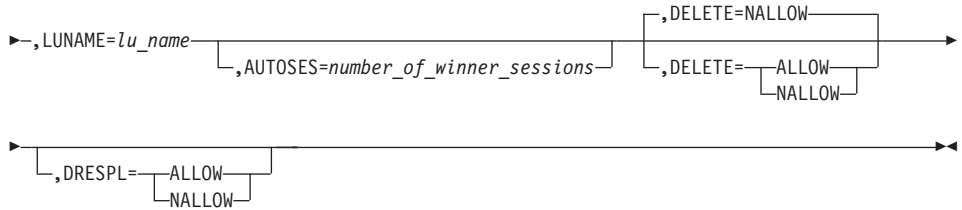
```
►—,LOGMODE=logon_mode_name—,LUNAME=lu_name—,AUTOSES=number_of_winner_sessions——►
```

```
►—,DELETE=NALLOW——►►
►—,DELETE=ALLOW——►►
►—,DELETE=NALLOW——►►
►—,DRESPL=ALLOW——►►
►—,DRESPL=NALLOW——►►
```

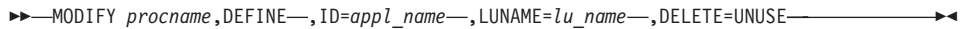
Use existing session limits:

```
►►—MODIFY procname,DEFINE—,ID=appl_name—,LOGMODE=logon_mode_name——►►
```

Modify commands

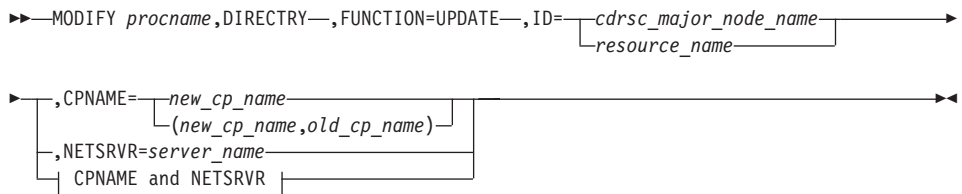


Delete an unusable LU-mode entry:

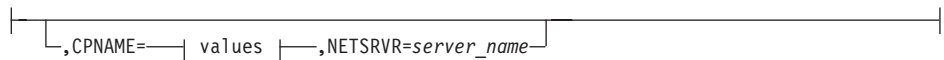


F DIRECTORY

Change the ownership of APPN resources in the directory database:



CPNAME and NETSRVR:



values:



Delete a resource from the directory database:



F DR

Delete a logical unit from a physical unit, or a physical unit from a line:

```

▶▶—MODIFY procname,DR—,TYPE=DELETE—,ID=lu_name,FROM=pu_name—
                                     |,ID=pu_name,FROM=line_name—

```

Move a physical unit:

```

▶▶—MODIFY procname,DR—,TYPE=MOVE—,ID=pu_name—,FROM=line_name—,TO=line_name—

```

```

▶▶—,ACTIVATE=NO—
   |,ACTIVATE=—NO—
   |             |YES—
   |             |,ADDR=link_station_address—

```

F DUMP

Static dump of remote NCP (via link station) to host:

```

▶▶—MODIFY procname,DUMP—,ID=link_station_name—,DUMPDS=name—,ACTION=COMP—
   |,OPTION=STATIC— |,RMPO=NO— |,TYPE=NCP—
   |                 |,RMPO=—NO—
   |                 |             |YES—

```

Static dump of NCP to host:

```

▶▶—MODIFY procname,DUMP—,ID=ncp_name—,ACTION=COMP—
   |,DUMPSTA=— |,DUMPDS=name—
   |           |,OPTION=STATIC— |,RMPO=NO—
   |           |                 |,RMPO=—NO—
   |           |                 |             |YES—
   |           |,TYPE=NCP—

```

Static dump of NCP to hard disk:

```

▶▶—MODIFY procname,DUMP—,ID=ncp_name—,ACTION=STORE—,OPTION=STATIC—

```

Dynamic dump of NCP to host:

Modify commands

```
➔—MODIFY procname,DUMP—,ID=ncp_name—,OPTION=DYNA—,ACTION=COMP—
```

```
┌,TYPE=NCP—
```

```
┌(1)
```

```
└,DUMPDS=name—
```

Notes:

1 If the NCP has been acquired before activation, DUMPDS is required.

Transfer CSP or MOSS dump from hard disk to host:

```
➔—MODIFY procname,DUMP—,ID=ncp_name—,TYPE=CSP—,ACTION=COMP—
```

```
└MOSS—
```

```
┌(1)
```

```
└,DUMPDS=name—
```

Notes:

1 If the NCP has been acquired before activation, DUMPDS is required.

Transfer NCP, CSP, or MOSS dump from hard disk to host:

```
➔—MODIFY procname,DUMP—,ID=ncp_name—,ACTION=TRANSFER—
```

```
┌,TYPE=NCP—
```

```
└,TYPE=CSP—
```

```
└MOSS—
```

```
└NCP—
```

```
┌(1)
```

```
└,DUMPDS=name—
```

Notes:

1 If the NCP has been acquired before activation, DUMPDS is required.

Purge dump from hard disk:

```
➔—MODIFY procname,DUMP—,ID=ncp_name—,ACTION=PURGE—
```

```
┌,TYPE=NCP—
```

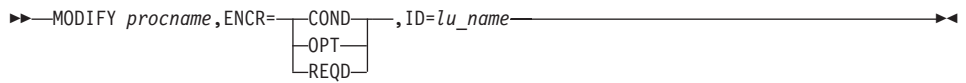
```
└,TYPE=CSP—
```

```
└MOSS—
```

```
└NCP—
```

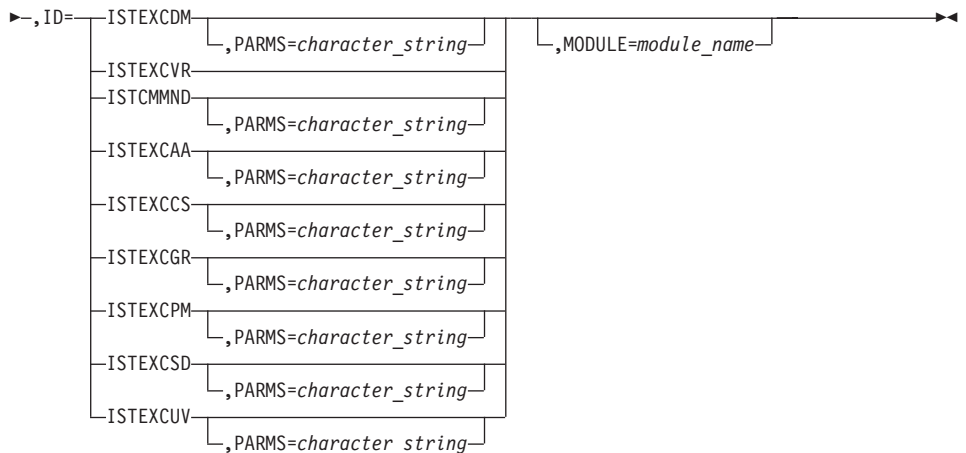
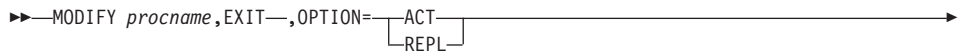

F ENCR

Change the cryptography specifications for logical units:

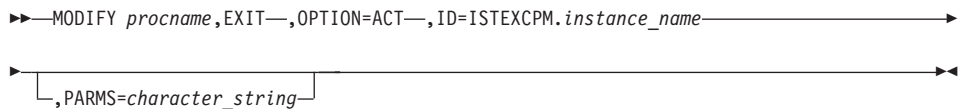


F EXIT

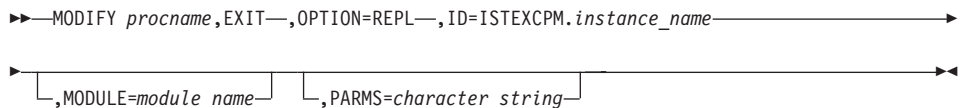
Activate or replace an exit routine:



Activate a multiple instance of ISTECPM:



Replace a multiple instance of ISTECPM:



Deactivate an exit routine:

Modify commands

```
►—MODIFY procname,EXIT—,OPTION=—INACT—  
                                  —FORCE—  
►—,ID=—ISTEXCDM—  
      —,PARMS=character_string—  
      —ISTEXCVR—  
      —ISTCMMND—  
      —,PARMS=character_string—  
      —ISTEXCAA—  
      —,PARMS=character_string—  
      —ISTEXCCS—  
      —,PARMS=character_string—  
      —ISTEXCGR—  
      —,PARMS=character_string—  
      —ISTEXCPM—  
      —,PARMS=character_string—  
      —ISTEXCSD—  
      —,PARMS=character_string—  
      —ISTEXCUV—  
      —,PARMS=character_string—
```

Deactivate a multiple instance of ISTECPM:

```
►—MODIFY procname,EXIT—,OPTION=—INACT—,ID=ISTEXCPM.instance_name—  
                                  —FORCE—  
►—  
—,PARMS=character_string—
```

F IMR

Start intensive mode recording:

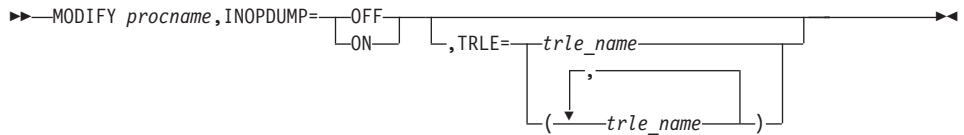
```
►—MODIFY procname,IMR—,ID=—link_station_name—  
                        —pu_name—,OPTION=ACT—  
►—  
—,RECLIM=10—  
—,RECLIM=number_of_errors—
```

Stop intensive mode recording:

```
►—MODIFY procname,IMR—,ID=—link_station_name—,OPTION=INACT—  
                        —pu_name—
```

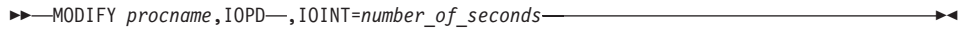
F INOPDUMP

Controls the automatic dumping of VTAM when an inoperative condition occurs in one of VTAMs data link control layers:



F IOPD

Change the I/O problem determination (IOPD) time-out interval:



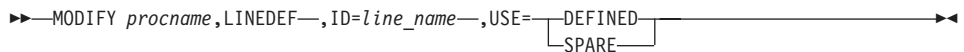
F IOPURGE

Set a time interval after which outstanding I/O is assumed to be lost and recovery steps are taken:



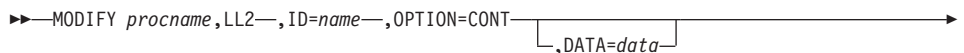
F LINEDEF

Dynamically change the definition of a redefinable line:



F LL2

Start a continuous link level 2 test:



Start a brief link level 2 test:

Modify commands

►►—MODIFY *procname*,LL2—,ID=*name*—
└┬,DATA=*data*—┘

└┬,NFRAMES=1—┘ └┬,NTRANS=10—┘
└┬,NFRAMES=*number_of_test_messages*—┘ └┬,NTRANS=*number_of_test_messages*—┘

Stop a link level 2 test:

►►—MODIFY *procname*,LL2—,ID=*name*—,OPTION=CANCEL—►►

F LOAD

Store a load module on the hard disk, and optionally for a 3745, schedule an IPL:

►►—MODIFY *procname*,LOAD—,ID=*ncp_name*—
└┬,ACTION=ADD—┘
└┬,IPLTIME=—(*date,time*)—┘ NOTIFY operand └┬,LOADMOD=*load_module_name*—┘

NOTIFY operand:

└┬,NOTIFY=60—┘
└┬,NOTIFY=—
└┬NO—┘
└┬*time_period*—┘

Replace a load module on the hard disk, and optionally for a 3745, schedule an IPL:

►►—MODIFY *procname*,LOAD—,ID=*ncp_name*—,ACTION=REPLACE—►►
└┬,IPLTIME=—(*date,time*)—┘ NOTIFY operand └┬,LOADMOD=*load_module_name*—┘

NOTIFY operand:

└┬,NOTIFY=60—┘
└┬,NOTIFY=—
└┬NO—┘
└┬*time_period*—┘

Purge a load module from the hard disk:

```

▶—MODIFY procname,LOAD—,ID=ncp_name—,ACTION=PURGE—————▶
|
|└─,LOADMOD=load_module_name—┘
|

```

Cancel an ADD or REPLACE operation in progress:

```

▶—MODIFY procname,LOAD—,ID=ncp_name—,ACTION=CANCEL————▶
|
|└─,LOADMOD=load_module_name—┘
|

```

Schedule or cancel an automatic IPL for an NCP load module in a 3745:

```

▶—MODIFY procname,LOAD—,ID=ncp_name—,ACTION=SETTIME————▶
|
|▶—,IPLTIME=—(date,time)—| NOTIFY operand |—————▶
|└─CANCEL—————┘ |└─,LOADMOD=load_module_name—┘
|

```

NOTIFY operand:

```

|└─,NOTIFY=60—————┘—————|
|└─,NOTIFY=—┘—————|
|   └─NO—————┘
|       └─time_period—┘
|

```

Rename a load module on the 3745 hard disk for MOSS:

```

▶—MODIFY procname,LOAD—,ID=ncp_name—,ACTION=RENAME—,LOADMOD=load_module_name—▶
|
|▶—,NEWNAME=new_load_module_name—————▶
|

```

F MSGMOD

Specify whether VTAM messages contain an identifier that indicates the VTAM module that originated the message:

```

▶—MODIFY procname,MSGMOD=—NO—————▶
|└─YES—┘
|

```

F NCP

Send a request to NCP to execute the specified command for the specified resource:

Modify commands

►►—MODIFY *procname*,NCP—,ID=*ncp_name*—,COMMAND=TRSWITCH—,RESNM=*resource_name*—►►

F NEGPOLL

Request that an NCP change the negative polling limit (the maximum number of consecutive negative polling responses accepted before polling another terminal on the line) for a nonswitched, multipoint line to one or more attached start/stop or BSC terminals:

►►—MODIFY *procname*,NEGPOLL=*number_of_responses*—,ID=*line_name*—►►

F NOTNSTAT

Terminate global or TRLE tuning statistics:

►►—MODIFY *procname*,NOTNSTAT—►►
└─,TRLE=*trle_name*—
└─(*trle_name*)—

F NOTRACE

Stop a buffer contents trace:

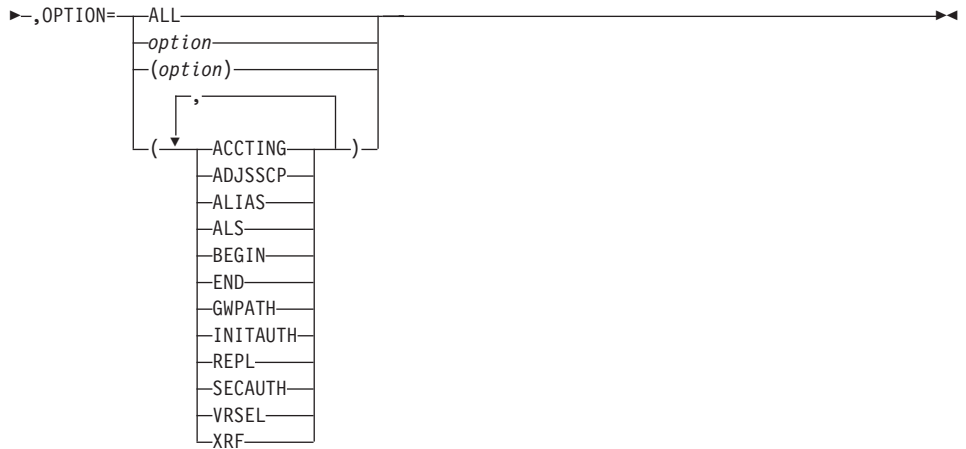
►►—MODIFY *procname*,NOTRACE—,TYPE=BUF—,ID=*node_name*—►►
└─,IDTYPE=RESOURCE—
└─,IDTYPE=*CP*—
└─RESOURCE—
└─SSCP—
└─,SCOPE=ONLY—
└─,SCOPE=*ALL*—
└─ONLY—

Stop a communication network management trace:

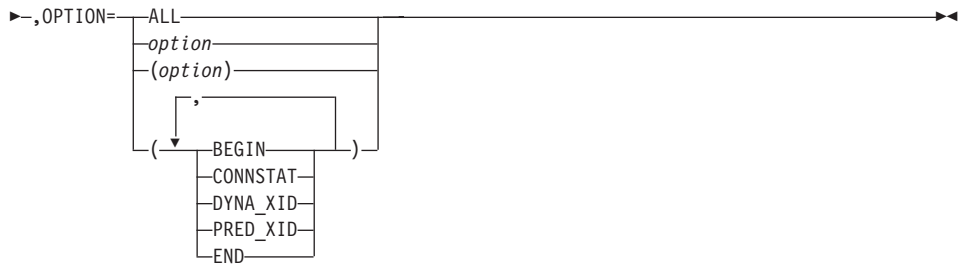
►►—MODIFY *procname*,NOTRACE—,TYPE=CNM—,ID=*PDPIUBUF*—
└─SAWBUF—►►

Stop a user Exit buffer trace:

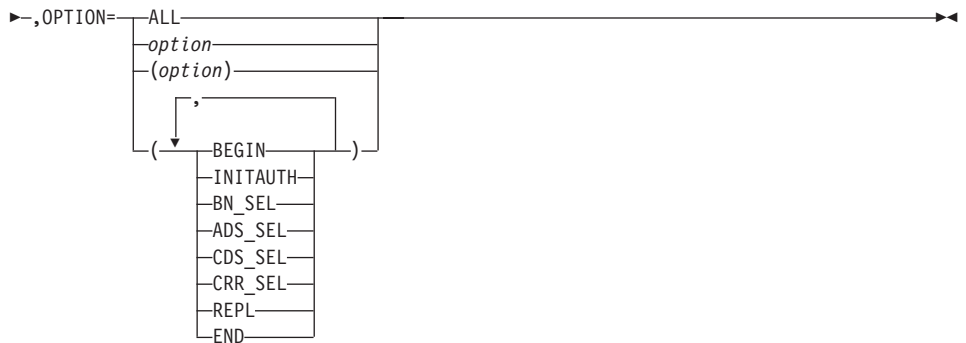
►►—MODIFY *procname*,NOTRACE—,TYPE=EXIT—,ID=ISTEXCAA—►►



▶ MODIFY *procname*,NOTRACE—,TYPE=EXIT—,ID=ISTEXCCS

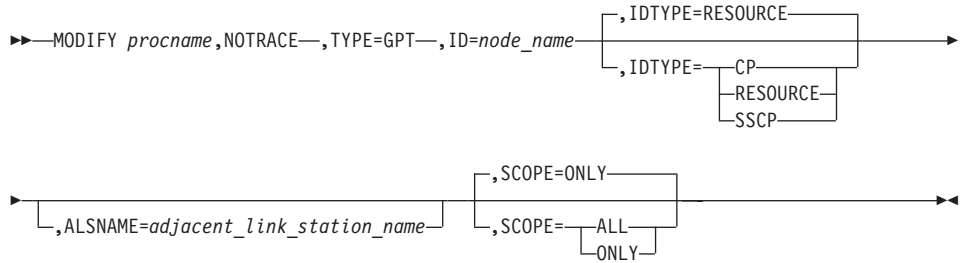


▶ MODIFY *procname*,NOTRACE—,TYPE=EXIT—,ID=ISTEXCDM

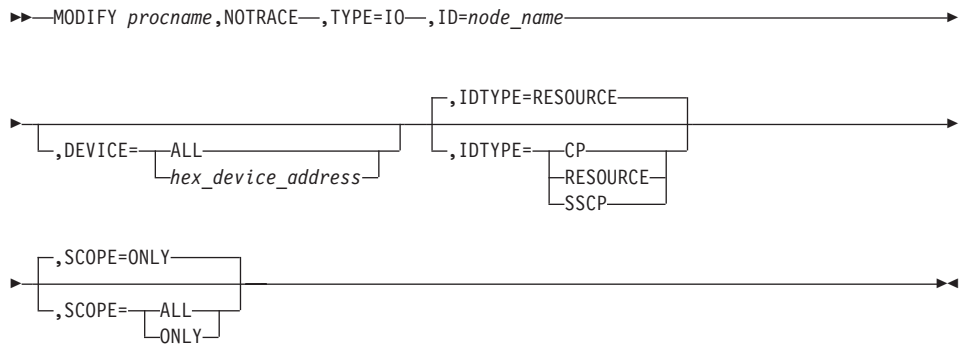


Stop a generalized PIU trace:

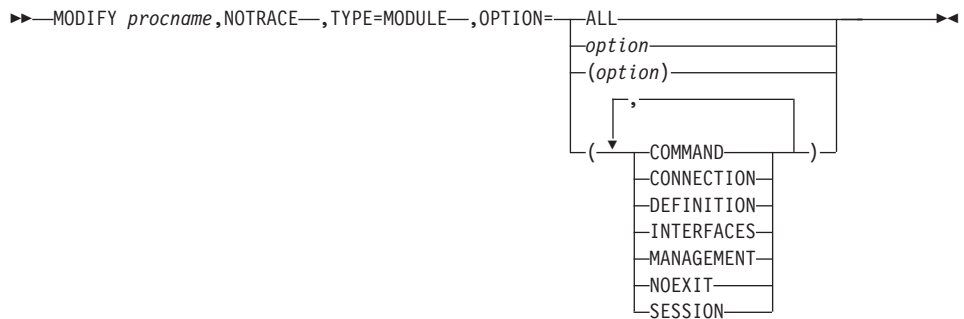
Modify commands



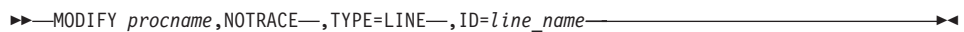
Stop an input/output trace:



Stop a module trace:



Stop an NCP line trace:



Stop a 3710 Network Controller line trace:

►►—MODIFY *procname*,NOTRACE—,TYPE=NETCTLR—,ID=*pu_name*—,LINE=*line_name*—►►
 ►—,PU=3710 *pu_name*—►►

Stop a scanner interface trace:

►►—MODIFY *procname*,NOTRACE—,TYPE=SIT—,ID=*line_name*—►►

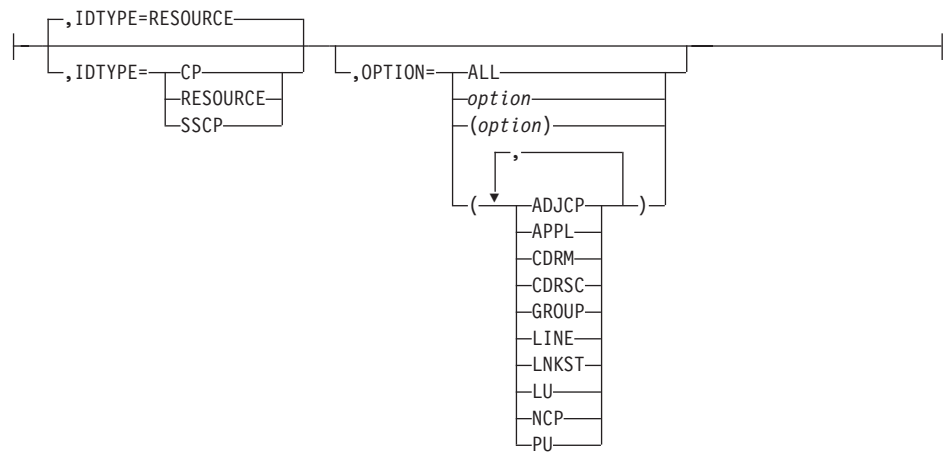
Stop an SMS (buffer use) trace:

►►—MODIFY *procname*,NOTRACE—,TYPE=SMS—,ID=VTAMBUF—►►

Stop a resource state trace:

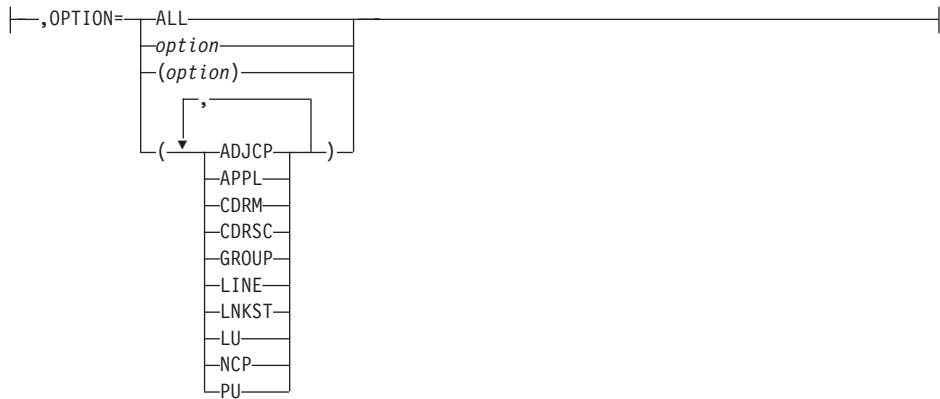
►►—MODIFY *procname*,NOTRACE—,TYPE=STATE—►►
 ►—,ID=*node_name*—| Operands used with ID |—►►
 | OPTION operand |

Operands used with ID:



OPTION operand:

Modify commands



Stop a transmission group trace:

►► `MODIFY procname,NOTRACE—,TYPE=TG—,ID=line_name` ►►

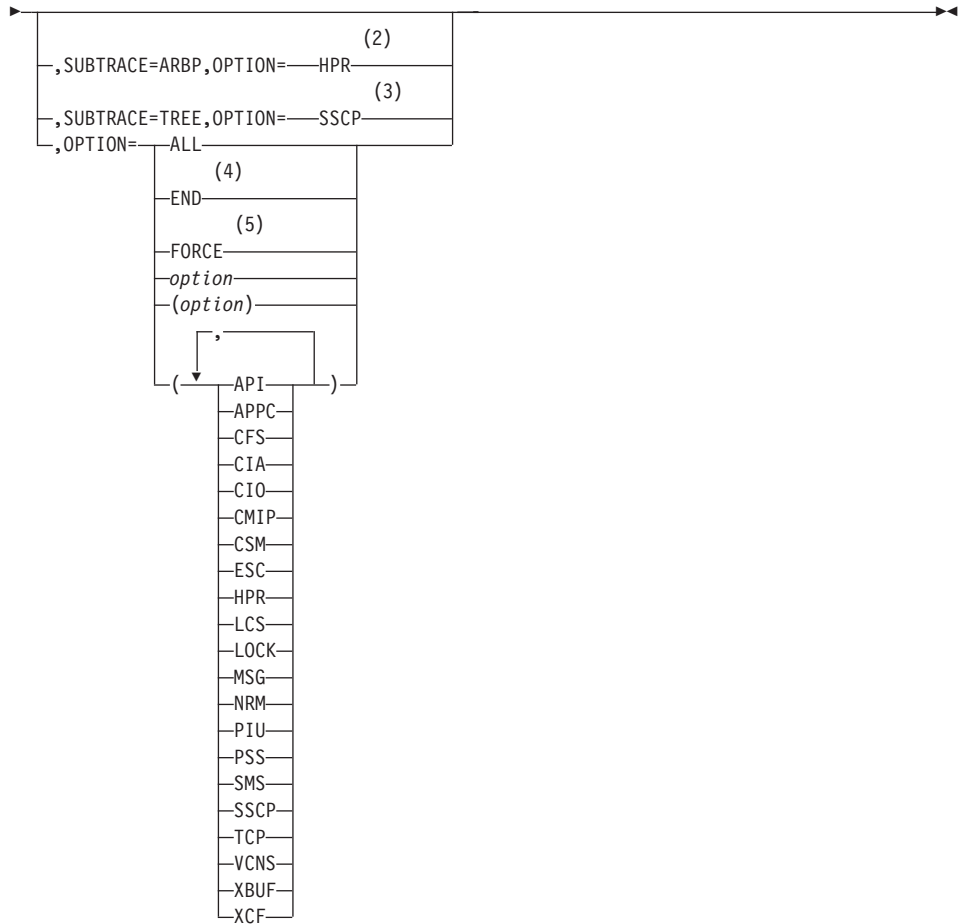
Stop a TSO user ID trace:

►► `MODIFY procname,NOTRACE—,TYPE=TSO—,ID=tso_user_id` ►►

Stop a VTAM internal trace:

►► `MODIFY procname,NOTRACE—,TYPE=VTAM` ►►

The diagram shows the `MODE` parameter options for the `VTAM` type. The options are `INT` and `EXT`. A `(1)` is shown next to `MODE=INT`, indicating that `MODE=INT` is the default mode.



Notes:

- 1 If you do not specify the mode, both internal and external recording are stopped. However, any default options that you have stopped are immediately restarted by VTAM and recorded on the internal trace table.
- 2 OPTION=HPR must be specified when SUBTRACE=ARBP is specified.
- 3 OPTION=SSCP must be specified when SUBTRACE=TREE is specified.
- 4 To stop external recording with OPTION=END, MODE=EXT must be explicitly specified.
- 5 OPTION=FORCE is not valid when MODE=EXT is specified.

Modify commands

F POLL

Request that an NCP change the polling delay (the time delay between polling sequences) for a nonswitched, polled line to one or more attached BSC IBM 3270 terminals:

```
▶▶—MODIFY procname,POLL=number_of_seconds—,ID=line_name————▶▶
```

F PPOLOG

Request that VTAM start or stop sending copies of VTAM operator commands and VTAM messages to the primary program operator (PPO):

```
▶▶—MODIFY procname,PPOLOG=YES————▶▶  
                                  NO
```

F PROFILES

Refresh an active application's set of RACF® profiles:

```
▶▶—MODIFY procname,PROFILES—,ID=appl_name————▶▶
```

F RESOURCE

Modify the DLOGMOD value for a resource:

```
▶▶—MODIFY procname,RESOURCE—,ID=resource_name—,DLOGMOD=logon_mode_name————▶▶
```

Add or change the ADJLIST value for a cross-domain resource:

```
▶▶—MODIFY procname,RESOURCE—,ID=resource_name—,ADJLIST=list_name—,ACTION=UPDATE————▶▶
```

Delete the ADJLIST value for a cross-domain resource:

```
▶▶—MODIFY procname,RESOURCE—,ID=resource_name—,ADJLIST=list_name—,ACTION=DELETE————▶▶
```

Change the delay timer for disconnection of a switched PU:

```
▶▶—MODIFY procname,RESOURCE—,ID=resource_name—,DISCNTIM=time_period————▶▶
```

Change the number of search requests for a resource:

▶▶—MODIFY *procname*,RESOURCE—,ID=*resource_name*—,SRCOUNT=*number_of_search_requests*—▶▶

Change the value of the search reduction timer for a resource:

▶▶—MODIFY *procname*,RESOURCE—,ID=*resource_name*—,SRTIMER=*number_of_seconds*—▶▶

Change the error message display option for an APPL or CDRSC:

▶▶—MODIFY *procname*,RESOURCE—,ID=*resource_name*—,SIRFMSG=—▶▶

—OLUSSCP—
—ALLSSCP—
—STARTOPT—
—NONE—

Reset the search reduction entry for a resource:

▶▶—MODIFY *procname*,RESOURCE—,ID=*resource_name*—,SRCLEAR=YES—▶▶

Modify the registration value for a resource:

▶▶—MODIFY *procname*,RESOURCE—,ID=*resource_name*—,REGISTER=—▶▶

—CDSERVR—
—NETSRVR—
—NO—

Modify the ASRCVLM value for an application program:

▶▶—MODIFY *procname*,RESOURCE—,ID=*resource_name*—,ASRCVLM=*amount_of_storage*—▶▶

Modify the MODSRCH value for an application program:

▶▶—MODIFY *procname*,RESOURCE—,ID=*resource_name*—,MODSRCH=—▶▶

—FIRST—
—LAST—
—NEVER—

Modify the VTAMTOPO value for a reporting status:

▶▶—MODIFY *procname*,RESOURCE—,ID=*resource_name*—,VTAMTOPO=—▶▶

—REPORT—
—NOREPORT—
—NOLLINES—
—NOSWPUS—
—INCLUDE—
—IGNORE—

Modify commands

F RTP

Request that VTAM search for the best high performance routing (HPR) route, based on transmission group weight, between the two endpoints of a rapid transport protocol (RTP) connection:

►► MODIFY *procname*,RTP—,ID=*rtp_pu_name*—►►

F SECURITY

Increase the cryptography specification for an LU:

►► MODIFY *procname*,SECURITY—,ID=*lu_name*—,ENCR=

COND
OPT
REQD

—

ENCRTYPE=DES
ENCRTYPE=TDDES24

—►►
(1)

Notes:

- 1 ENCRTYPE can not be downleveled. If the current value is TDDES24, MODIFY SECURITY ENCRTYPE=DES will not be allowed.

Modify which cryptographic key name is used for an LU:

►► MODIFY *procname*,SECURITY—,ID=*lu_name*—,CKEY=

ALTERNATE
PRIMARY

—►►

Initiate SLU authentication for an LU:

►► MODIFY *procname*,SECURITY—,ID=*lu_name*—,CERTIFY=YES—►►

Increase the message authentication specification for an LU:

►► MODIFY *procname*,SECURITY—,ID=*lu_name*—,MAC=

COND
REQD

—►►

►►

MACTYPE=CRC
MACTYPE=DES

—

MACLNTH=2
MACLNTH=4

—

MACLNTH=4
MACLNTH=6
MACLNTH=8

—►►

F SESSION

Request that an NCP change the session limit (the maximum number of concurrent line scheduling sessions allowed) for a nonswitched multipoint line to one or more attached start/stop or BSC terminals:

►—MODIFY *procname*,SESSION=*number_of_sessions*—,ID=*line_name*—►

F SUPP

Change the message suppression level after VTAM has been started:

►—MODIFY *procname*,SUPP=—
 |—NOSUP—
 |—INFO—
 |—WARN—
 |—NORM—
 |—SER—
 —►

F TABLE

Change resource associations:

►—MODIFY *procname*,TABLE—,OPTION=ASSOCIATE—►

►,TYPE=—
 |—ASLTAB— | ID and OLDTAB | —,NEWTAB=*new_table_name*—►
 |—FLDTAB— |
 |—LOGTAB— |
 |—MDLTAB— |
 |—MODETAB— |
 |—USSTAB— |
 |—COSTAB,NETID=*netid*,ORIGIN=*ncp_name*—

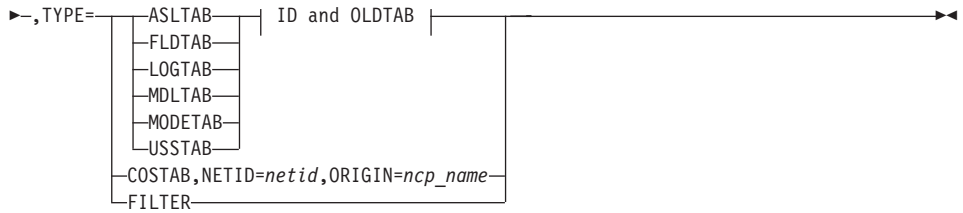
ID and OLDTAB:

|—,ID=*name*,OLDTAB=—*—
 |—*old_table_name*—|

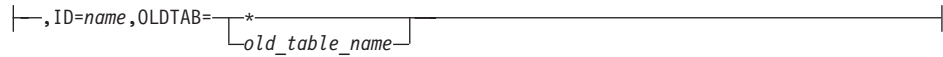
Delete resource associations:

►—MODIFY *procname*,TABLE—,OPTION=DELETE—►

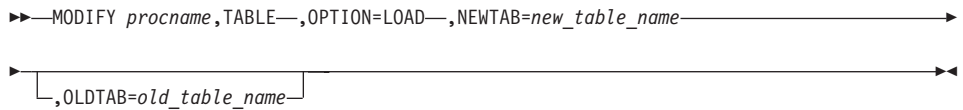
Modify commands



ID and OLDTAB:



Load a replacement table (other than a filter table):



Load a replacement filter table:

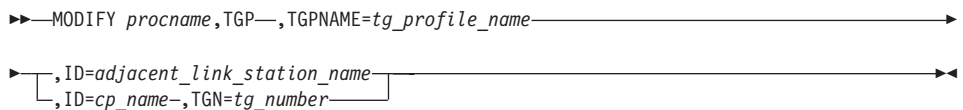


Load an updated directory definition file:



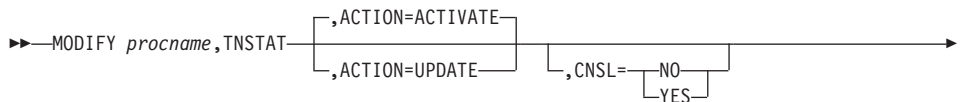
F TGP

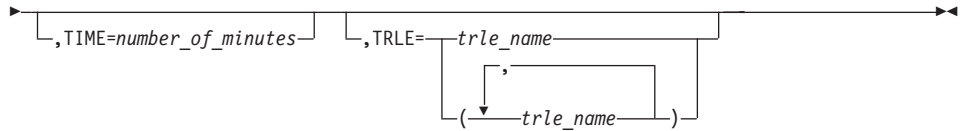
Change the transmission group (TG) profile associated with a 2.1 connection:



F TNSTAT

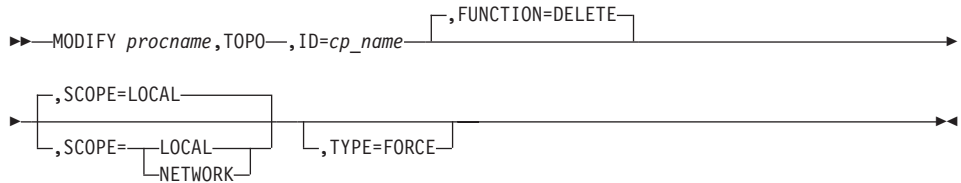
Initiate global or TRLE tuning statistics. Also used to alter the CNSL and TIME tuning statistics values.



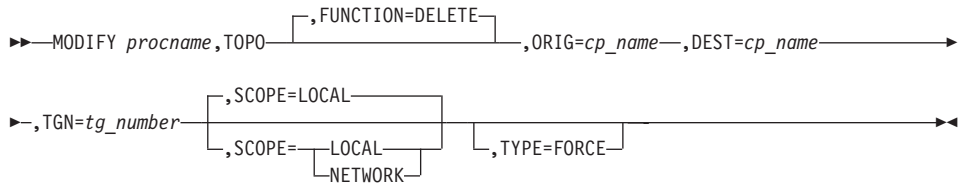


F TOPO

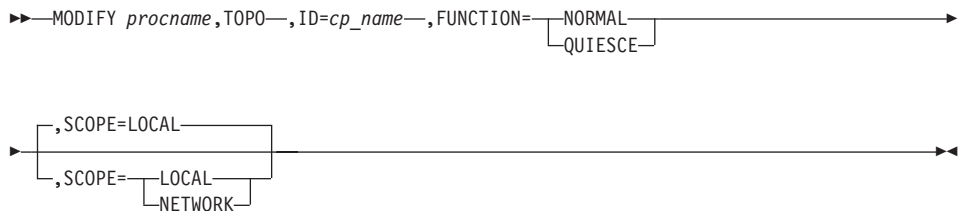
Delete a node:



Delete a transmission group:



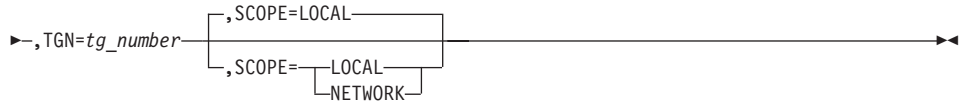
Modify the status of a node for route calculation:



Modify the status a transmission group for route calculation:

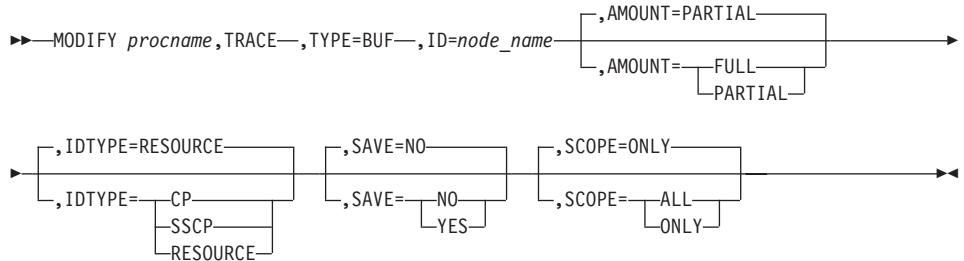


Modify commands

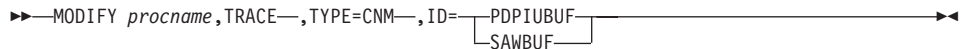


F TRACE

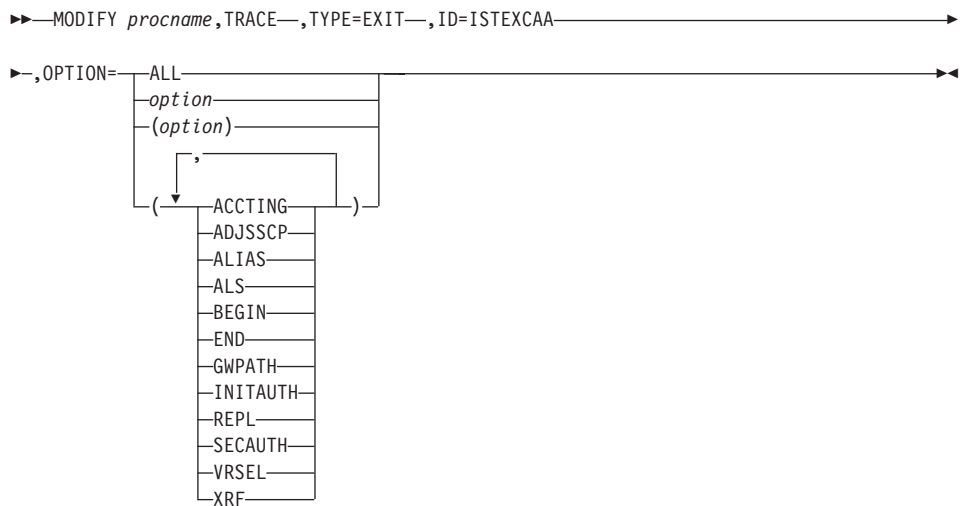
Start or modify a buffer contents trace:

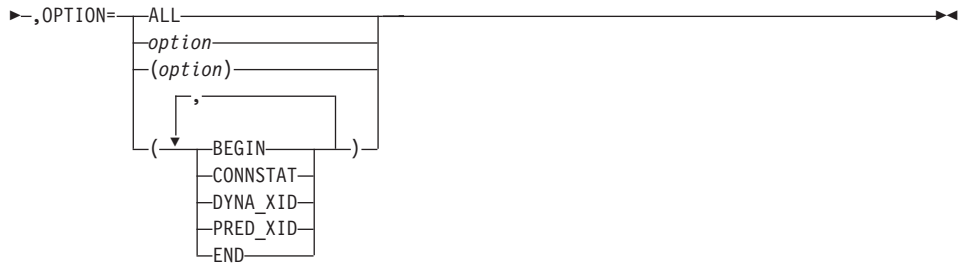


Start or modify a communication network management trace:

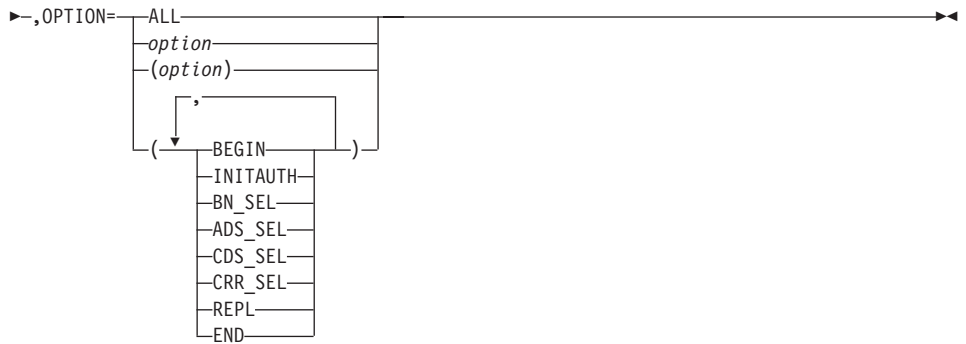


Start or modify a user Exit buffer trace:



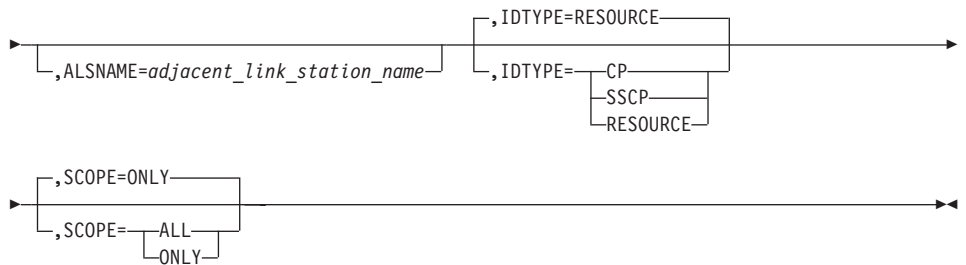


►► MODIFY *procname*,TRACE—,TYPE=EXIT—,ID=ISTEXCDM—

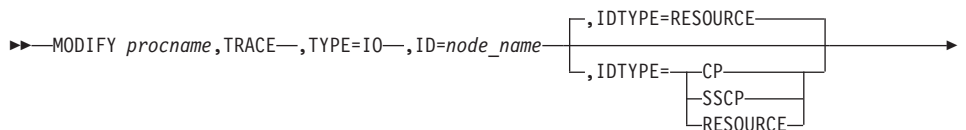


Start or modify a generalized PIU trace:

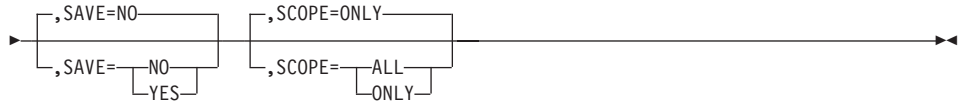
►► MODIFY *procname*,TRACE—,TYPE=GPT—,ID=*node_name*—



Start or modify an input/output trace:

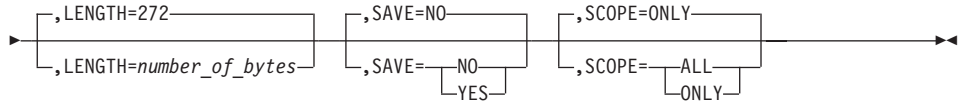
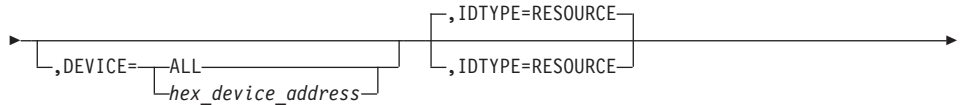


Modify commands



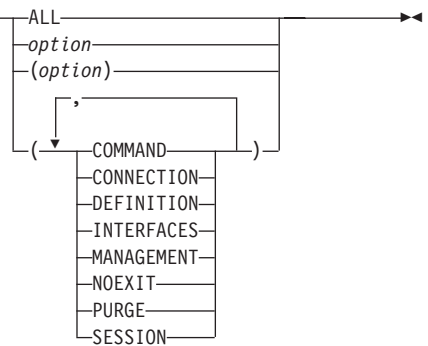
Start or modify an input/output trace for a TRLE with the DATAPATH operand coded:

►► `MODIFY procname,TRACE—,TYPE=IO—,ID=trle_name`



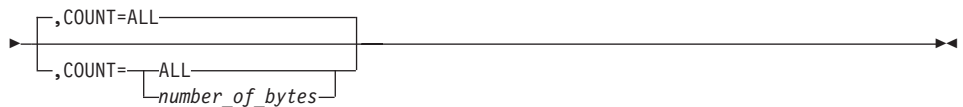
Start or modify a module trace:

►► `MODIFY procname,TRACE—,TYPE=MODULE—,OPTION=`

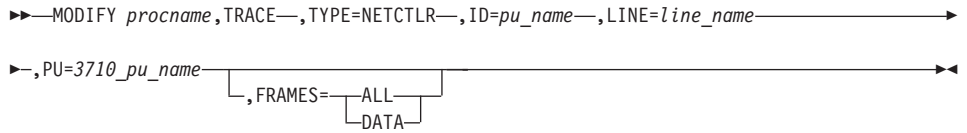


Start or modify an NCP line trace:

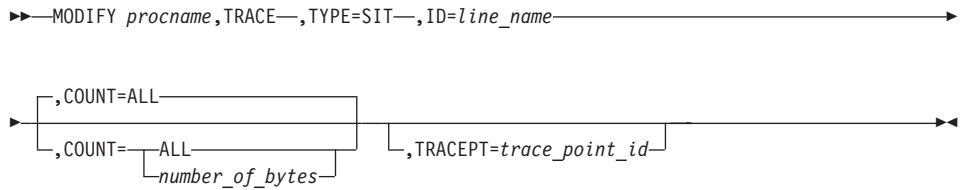
►► `MODIFY procname,TRACE—,TYPE=LINE—,ID=line_name`



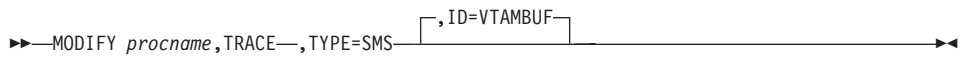
Start or modify a 3710 Network Controller line trace:



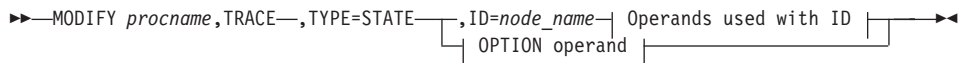
Start or modify a scanner interface trace:



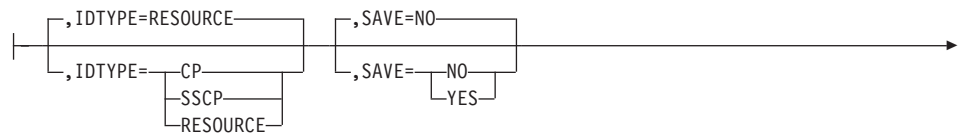
Start or modify an SMS (buffer use) trace:



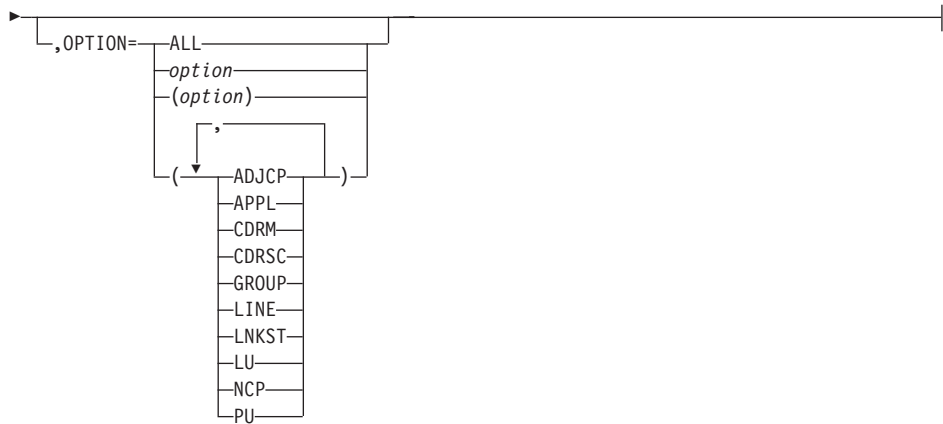
Start or modify a resource state trace:



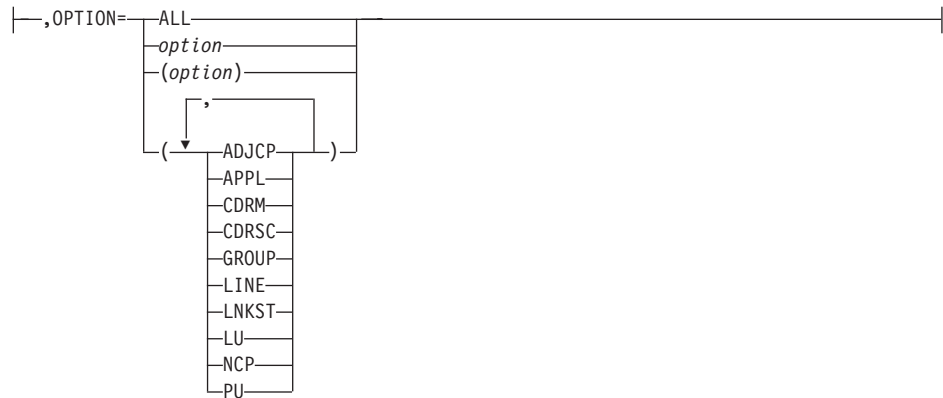
Operands used with ID:



Modify commands



OPTION operand:



Start or modify a transmission group trace:

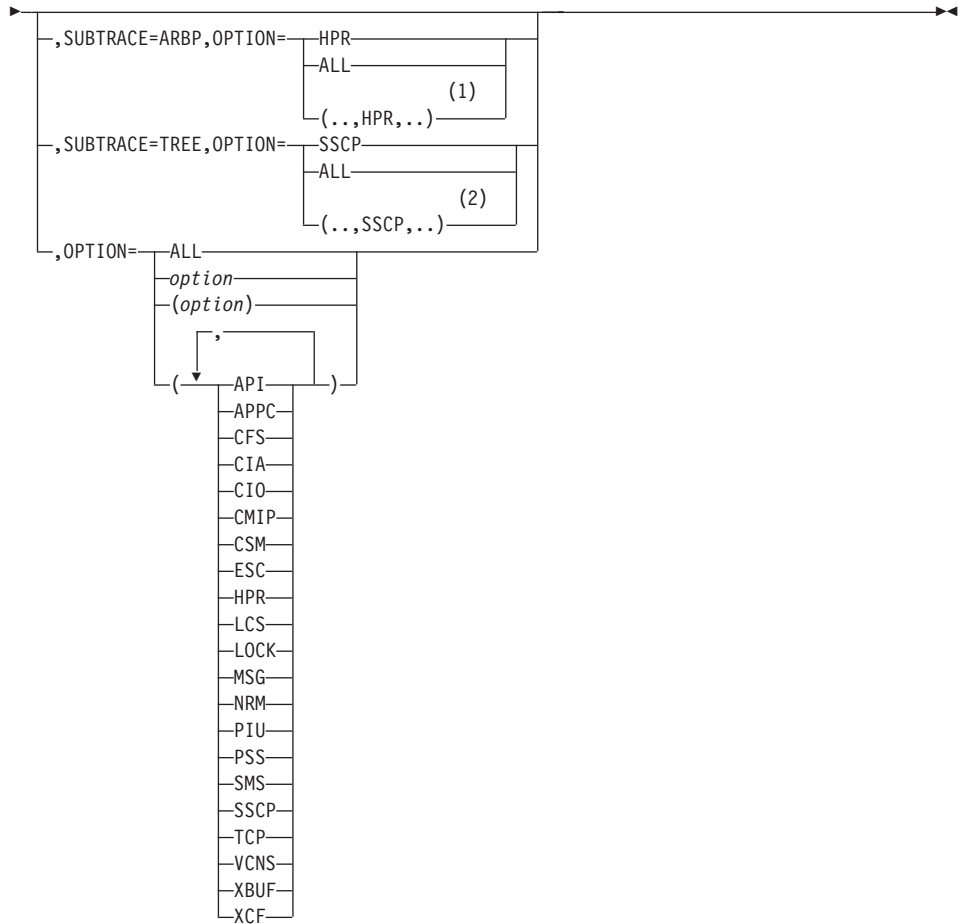
►► `MODIFY procname,TRACE—,TYPE=TG—,ID=line_name—`►►

Start or modify a TSO user ID trace:

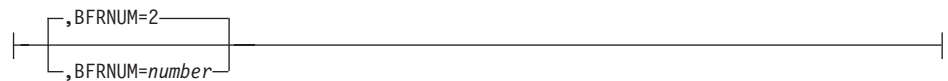
►► `MODIFY procname,TRACE—,TYPE=TSO—,ID=tso_user_id—`►►

Start or modify the VTAM internal trace:

►► `MODIFY procname,TRACE—,TYPE=VTAM—`►►
`,MODE=` `EXT` | `INT` | `EXT operands` | `INT operands`



EXT operands:



INT operands:



Notes:

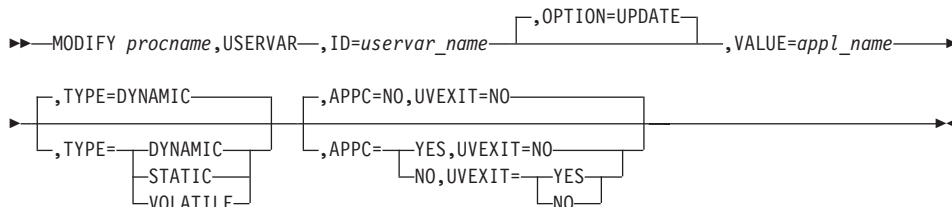
- 1 If multiple trace options are coded in parentheses, HPR must be one of the options coded inside the parentheses when `SUBTRACE=ARBP` is coded.

Modify commands

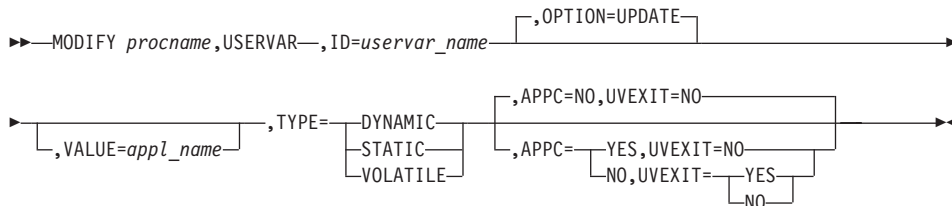
- 2 If multiple trace options are coded in parentheses, SSCP must be one of the options coded inside the parentheses when SUBTRACE=TREE is coded.

F USERVAR

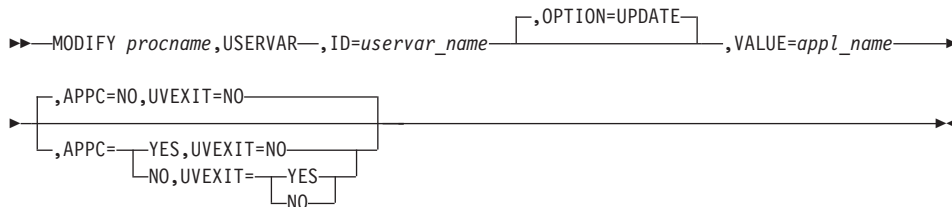
Create a new USERVAR:



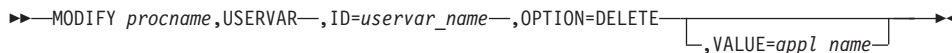
Update an existing USERVAR and change the TYPE:



Update an existing USERVAR, leaving the TYPE unchanged:

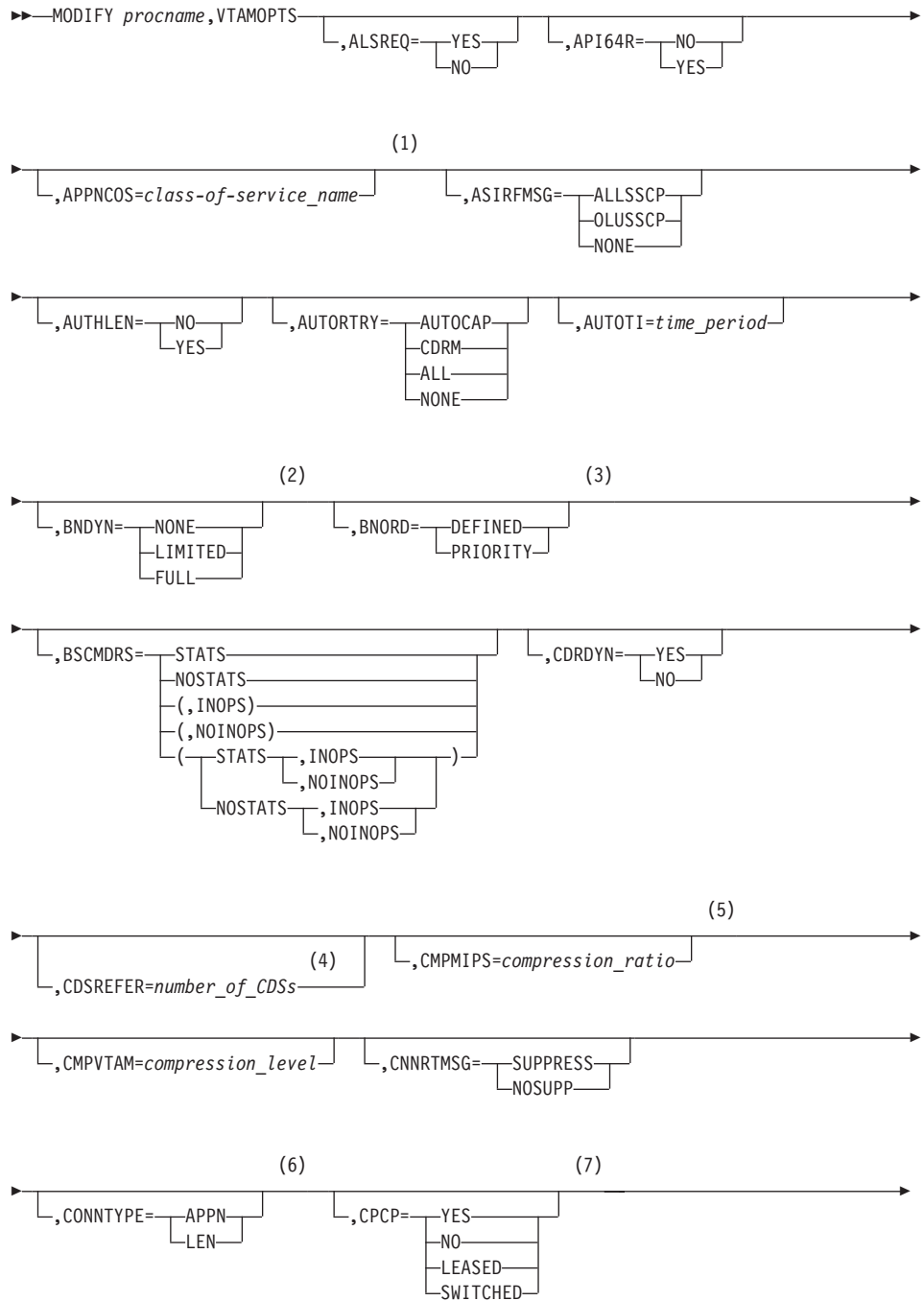


Delete a USERVAR:

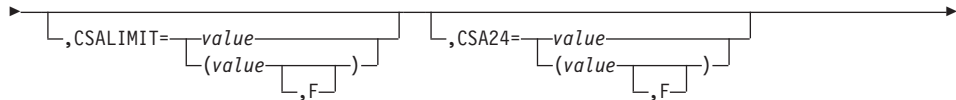


F VTAMOPTS

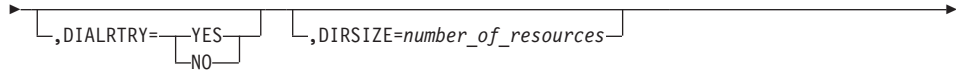
Change certain values that might have been specified on VTAM start options:



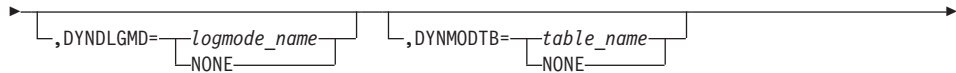
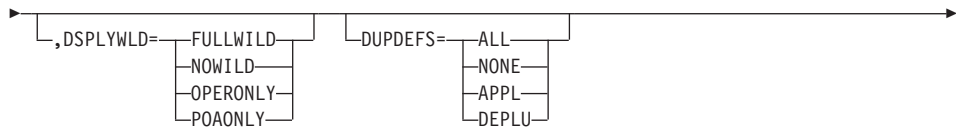
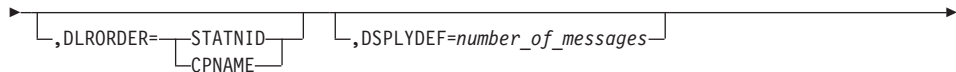
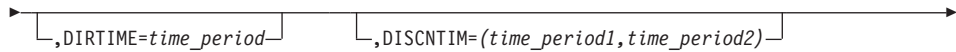
Modify commands



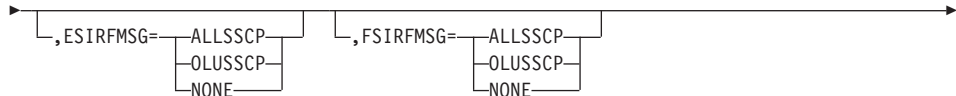
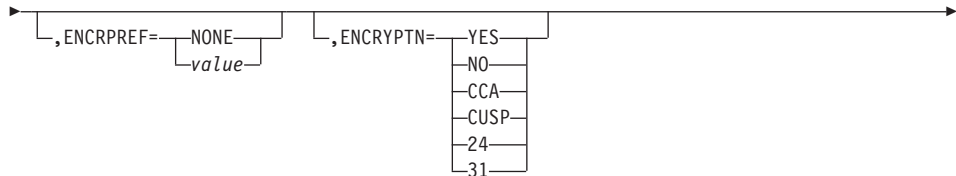
(8)



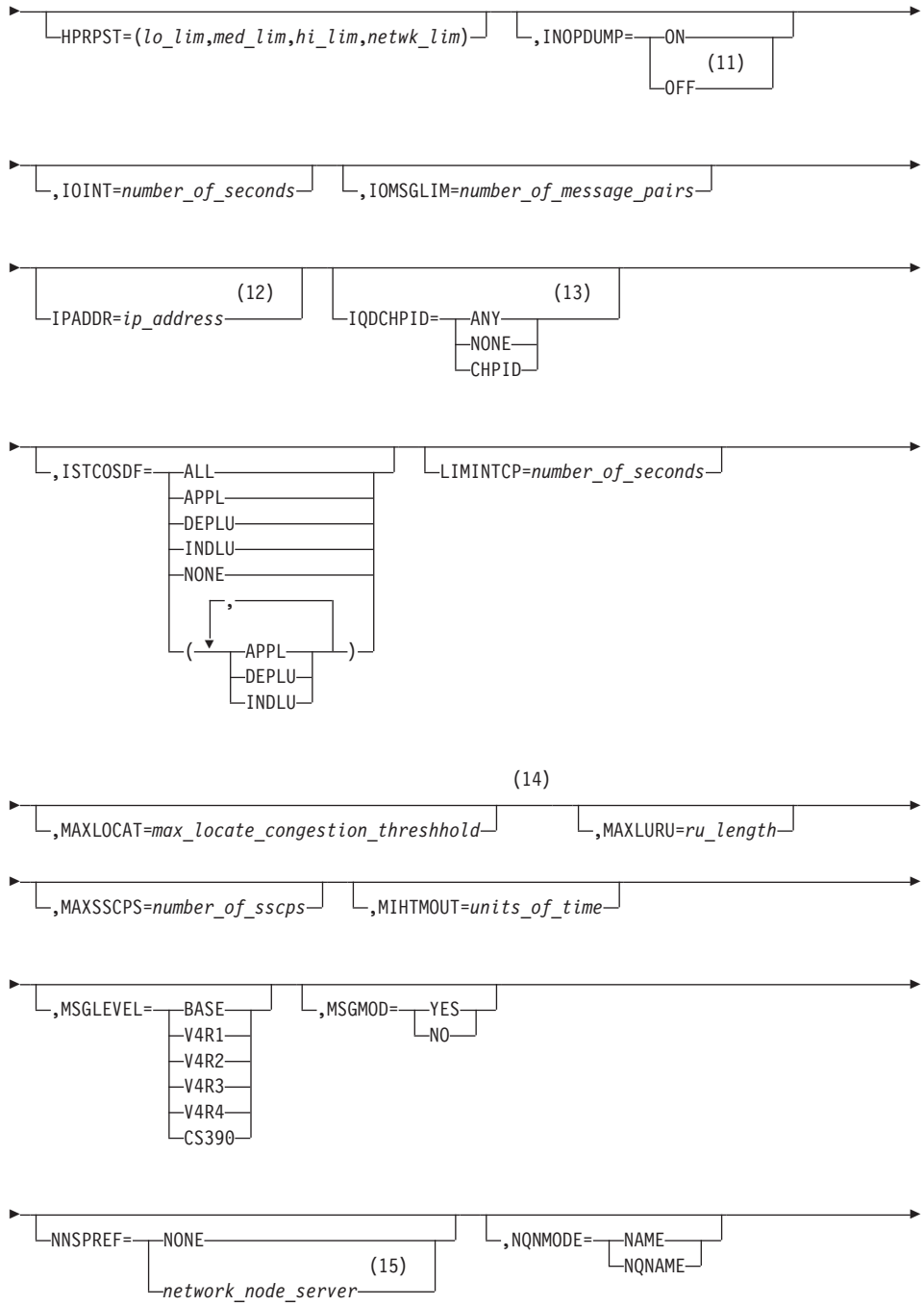
(9)



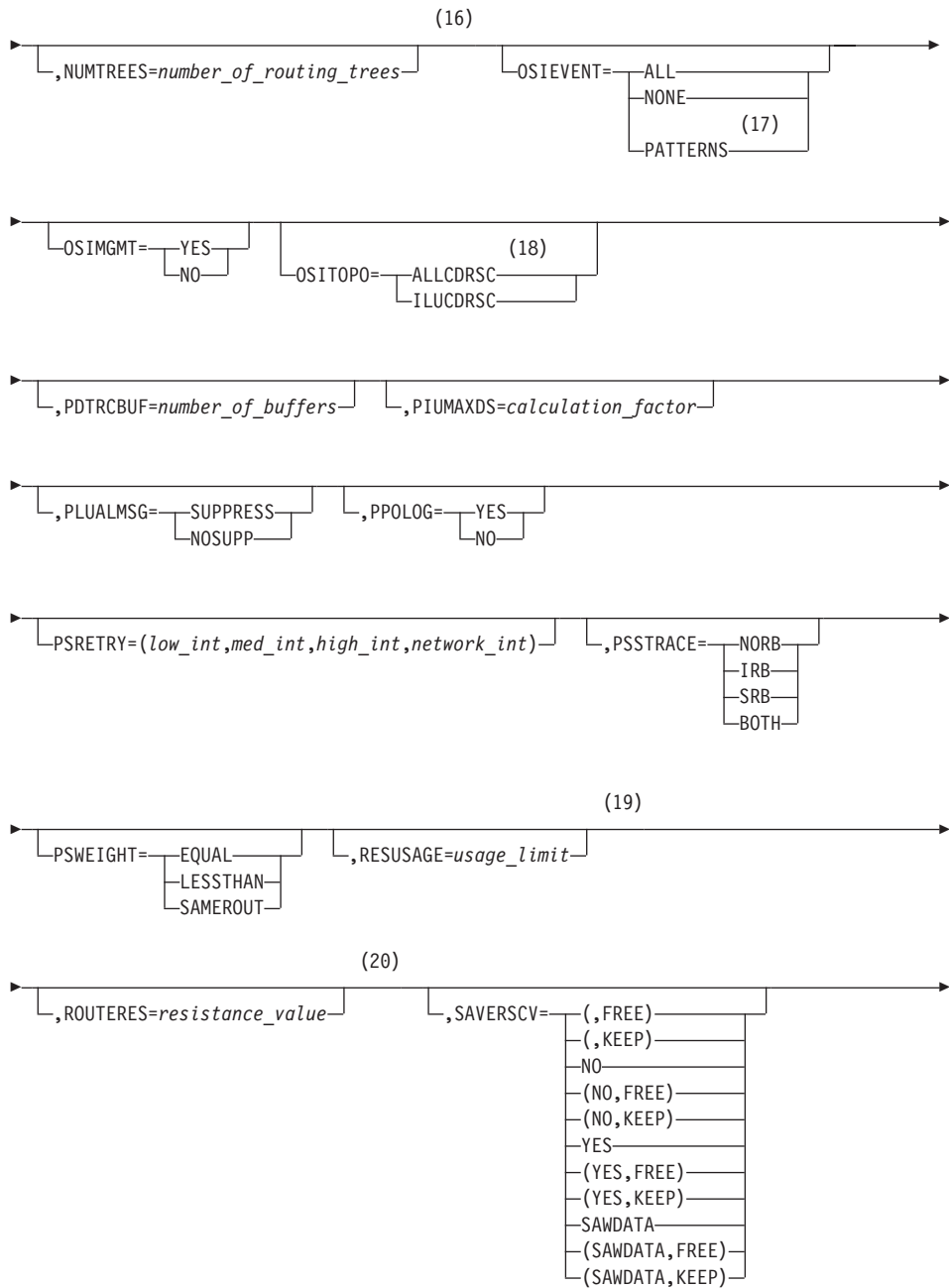
(10)



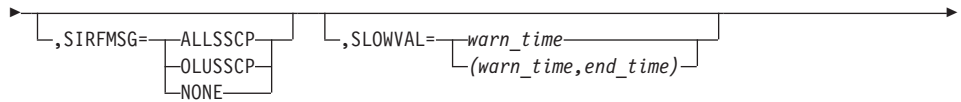
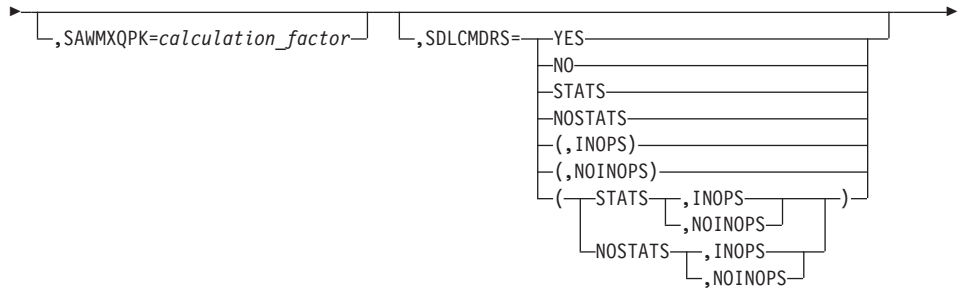
Modify commands



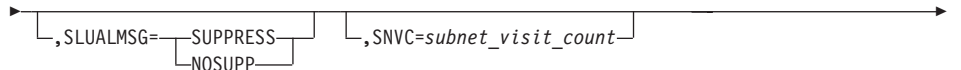
Modify commands



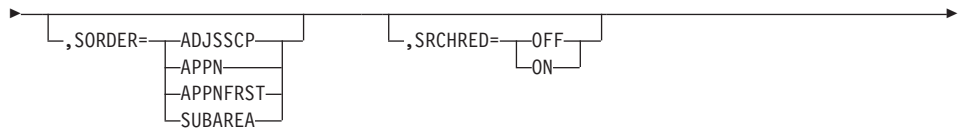
Modify commands



(21)

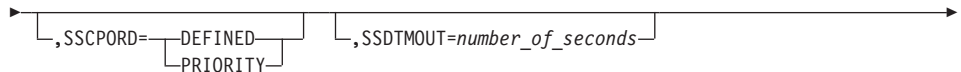


(22)

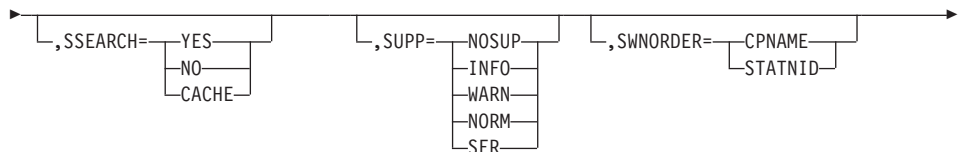


(23)

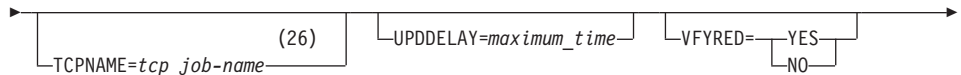
(24)



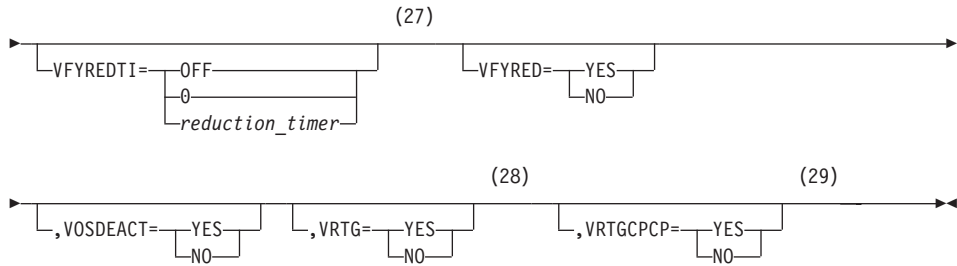
(25)



(26)



Modify commands



Notes:

- 1 APPNCOS can be modified only if NODETYPE was specified during VTAM START processing.
- 2 BNDYN can be modified only if BN=YES was specified during VTAM START processing.
- 3 BNORD can be modified only if BN=YES was specified during VTAM START processing.
- 4 CDSREFER can be modified only if NODETYPE=NN and CDSERVR=NO were specified during VTAM START processing.
- 5 CMPMIPS is meaningful only if the value for CMPVTAM is greater than 1.
- 6 CONNTYPE can be modified only if NODETYPE was specified during VTAM START processing.
- 7 CPCP can be modified only if NODETYPE was specified during VTAM START processing.
- 8 DIRSIZE can be modified only if NODETYPE=NN was specified during VTAM START processing.
- 9 DIRTIME can be modified only if NODETYPE=NN was specified during VTAM START processing.
- 10 The ENCRYPTN start option cannot be modified if ENCRYPTN=NO was specified during VTAM START processing.
- 11 When altering the INOPDUMP VTAM start option, the resulting INOPDUMP status is propagated to all TRLEs in the TRL major node and becomes the default status for any subsequently activated TRLEs.
- 12 IPADDR can be modified but the new value will not be used until all lines in the XCA major node used for Enterprise Extender are inactive. However, displays of VTAM start options will show the new value immediately. Any subsequent line activation from the Enterprise Extender XCA major node will make use of the new IPADDR value.
- 13 The IQDCHPID option controls which IQD CHPID (and related subchannel devices) VTAM selects to dynamically build the iQDIO (IUTIQDIO) MPC group. The IUTIQDIO MPC group is used for TCP/IP dynamic XCF communications within this zSeries system. Although this option can be modified

(and the modification will immediately be displayed) while the IUTIQDIO MPC group is currently active, any modifications will have the following effects:

- modified from ANY (or CHPID) to NONE — no effect on current usage but blocks subsequent activations
- modified from NONE to ANY (or CHPID) — no effect on current usage but allows subsequent activations
- modified from CHPID_X to CHPID_Y — no effect on current usage

Note: VTAM only uses the CHPID value when building the IUTIQDIO MPC group. To change CHPIDs for an active MPC group, the following must be done:

1. All TCP/IP iQDIO devices must be stopped.
2. Make any necessary HCD/IOCDS changes.
3. Verify that new subchannel devices are varied online.
4. Verify that the MPC group has deactivated (with no usage, it times out after approximately two minutes).
5. Modify IQDCHPID=CHPID (to new CHPID).
6. Restart the TCP/IP iQDIO device or devices.

Note: In order to use iQDIO communications, the processor must have the necessary hardware support. If the processor does not support iQDIO communications, then modifications to this start option will not be accepted and the IQDCHPID option will not be displayed (displayed as ***NA***).

- 14 MAXLOCAT can be modified only if NODETYPE was specified during VTAM START processing.
- 15 NNSPREF can be specified only if NODETYPE=EN is specified during VTAM START processing.
- 16 NUMTREES can be modified only if NODETYPE=NN was specified during VTAM START processing.
- 17 OSIEVENT=PATTERNS is not valid when OSIMGMT=YES.
- 18 OSITOP=ALLCDRSC is not valid when OSIMGMT=YES.
- 19 RESUSAGE can be modified only if NODETYPE=NN was specified during VTAM START processing.
- 20 ROUTERES can be modified only if NODETYPE=NN was specified during VTAM START processing.
- 21 SNVC can be modified only if BN=YES was specified during VTAM START processing.
- 22 SORDER can be modified only if VTAM has been started as an interchange node or a migration data host.
- 23 SRCOUNT is meaningful only when SRCHRED=ON.
- 24 SRTIMER is meaningful only when SRCHRED=ON.

Modify commands

- 25 SSEARCH can be modified only if NODETYPE=NN was specified during VTAM START processing.
- 26 TCPNAME can be modified but the new value will not be used until all lines in the XCA major node used for Enterprise Extender are inactive. However, displays of VTAM start options will show the new value immediately. Any subsequent line activation from the Enterprise Extender XCA major node will make use of the new TCPNAME value.
- 27 VFYREDTI can be modified only if NODETYPE=NN was specified during VTAM START processing.
- 28 VRTG can be modified only if NODETYPE and HOSTSA are specified.
- 29 VRTGCPCP can be modified only if NODETYPE and HOSTSA are specified.

Chapter 6. Starting VTAM

START

▶—START *procname* , , (— Options —) —▶

For the syntax of the start options that you can specify on this command, see Chapter 8, “Start options” on page 115.

Starting VTAM

Chapter 7. Vary commands

V ACQ

Acquire an NCP, and optionally its subordinate resources, from another host:

```
▶—VARY NET,ACQ—,ID=ncp_name— [ ,OWNER=host_name ] [ ,PUSUB ]
```

```
▶ [ ,ACT ] Operands used with ACT
```

Acquire “inactive” NCP, and optionally its subordinate resources, without activating them:

```
▶—VARY NET,ACQ—,ID=ncp_name— [ ,PUSUB ]
```

Acquire “inactive” NCP, and optionally its subordinate resources, and activate them:

```
▶—VARY NET,ACQ—,ID=ncp_name—,ACT— Operands used with ACT [ ,PUSUB ]
```

```
▶ [ ,LOADMOD=load_module_name ]
```

Acquire nonswitched PU and its LUs:

```
▶—VARY NET,ACQ—,ID=pu_name— [ ,ACT ] Operands used with ACT
```

Operands used with ACT:

```
[ ,LOGON=appl_name ] [ LOGMODE operand ] [ ,SCOPE=COMP ] [ ,SCOPE=ALL ] [ ,SCOPE=COMP ] [ ,SCOPE=ONLY ] [ ,SCOPE=U ]
```

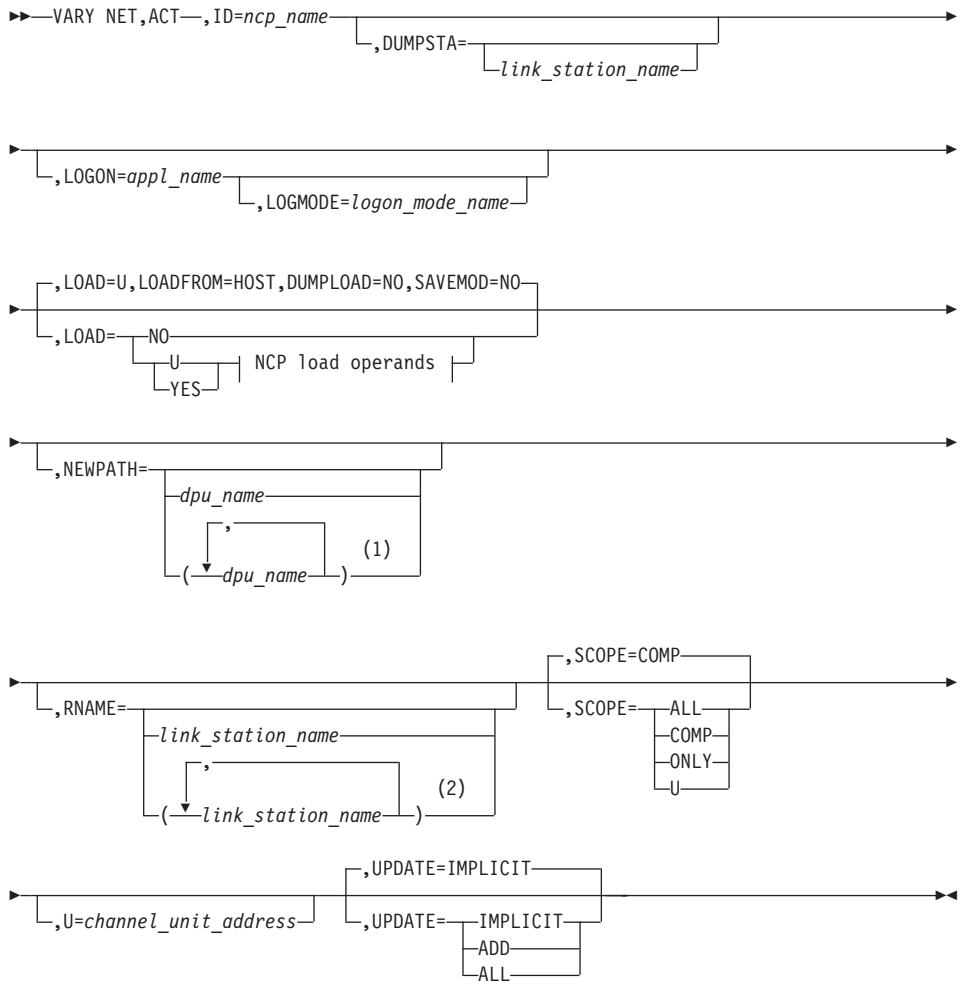
LOGMODE operand:

```
[ ,LOGMODE=logon_mode_name ]
```

Vary commands

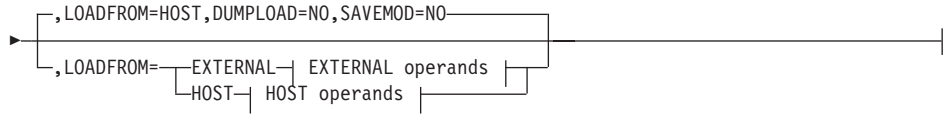
V ACT

Activate an NCP major node:

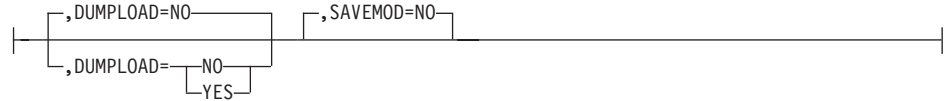


NCP LOAD operands:

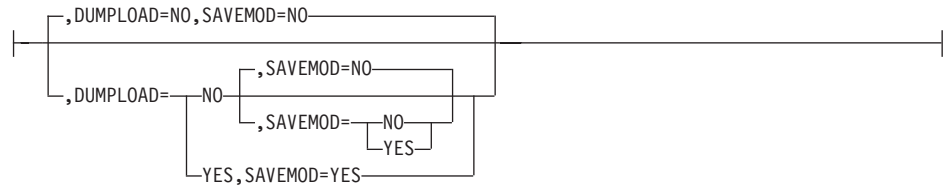




EXTERNAL operands:



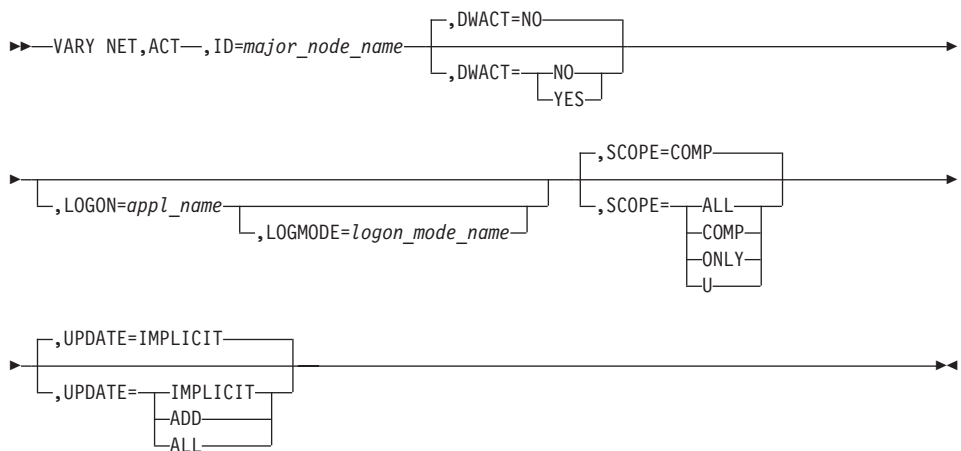
HOST operands:



Notes:

- 1 You can specify up to three dynamic path update member names on the `NEWPATH` operand.
- 2 You can specify up to 13 link station names on the `RNAME` operand.

Activate a switched major node:



Activate the dynamic XCF local SNA major node:

Vary commands

►► VARY NET,ACT—,ID=ISTLSXCF ◀◀

Activate a switched line:

►► VARY NET,ACT—,ID=*line_name* ◀◀
 ◀,ANS=—OFF—
 ◀—ON—

Activate a type 2.1 PU (adjacent link station) or a nonswitched line under an NCP:

►► VARY NET,ACT—,ID=—*pu_name*— ◀◀ (1)
 ◀—*line_name*— ◀,CPCP=—YES—
 ◀—NO— ◀,HPR=—NO—
 ◀—YES—

◀,LOGON=*appl_name*— ◀,LOGMODE=*logon_mode_name*— ◀,SCOPE=COMP—
 ◀,SCOPE=—ALL—
 ◀—COMP—
 ◀—ONLY—
 ◀—U—

(2)
 ◀,U=*channel_unit_address*— ◀◀

Notes:

- 1 The HPR operand is valid for HPR-capable resources only.
- 2 The U operand is valid for a local SNA PU only.

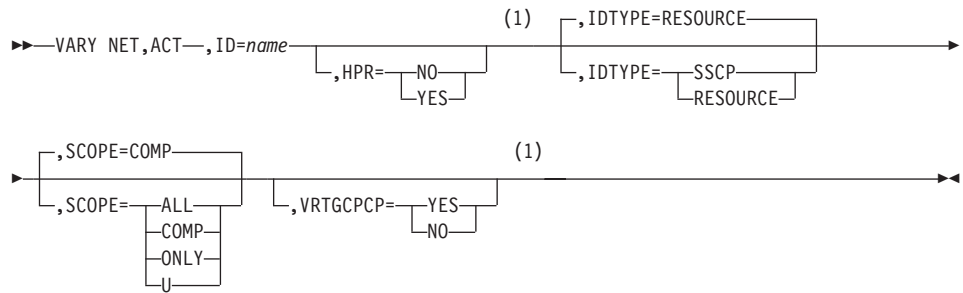
Activate a dynamic XCF local SNA PU:

►► VARY NET,ACT—,ID=*name* ◀◀
 ◀,IDTYPE=XCFCP—

Activate a control point (CDRSC minor node or application program minor node):

►► VARY NET,ACT—,ID=*name* ◀◀
 ◀,IDTYPE=RESOURCE— ◀,SCOPE=COMP—
 ◀,IDTYPE=—CP— ◀,SCOPE=—ALL—
 ◀—RESOURCE— ◀—COMP—
 ◀—ONLY—
 ◀—U—

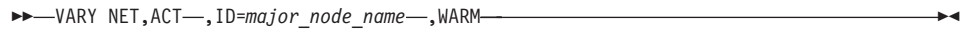
Activate an SSCP (CDRM minor node):



Notes:

- 1 HPR and VRTGCPCP are only valid if VRTG=YES is coded for the CDRM, and the CDRM is in an inactive state.

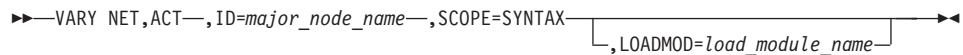
Warm start a major node:



Activate a definition file (a major node with no subordinate resources):

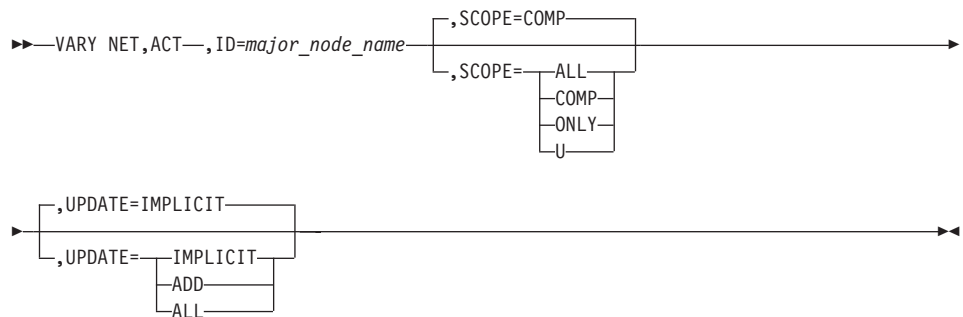


Check the syntax of a definition file (major node):



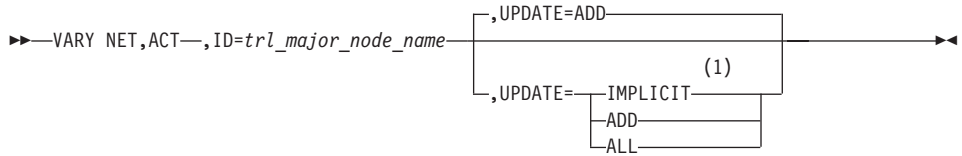
Dynamically reconfigure resources in a major node:

Note: For an NCP major node, follow the syntax diagram for “Activating an NCP major node” and specify the UPDATE operand.



Dynamically reconfigure TRLEs in a TRL major node:

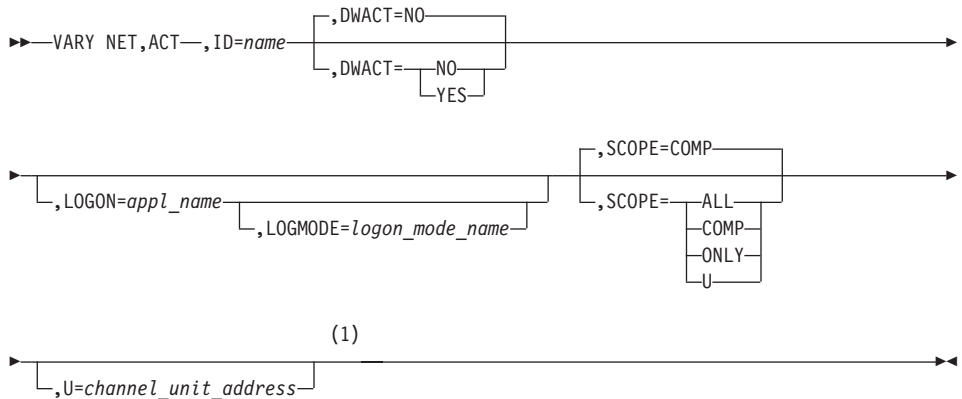
Vary commands



Notes:

- 1 Specifying UPDATE=IMPLICIT is the same as UPDATE=ADD.

Activate other resources:

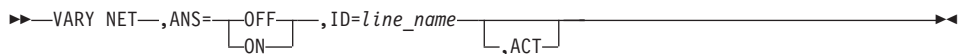


Notes:

- 1 The U operand is valid for a local SNA PU or a channel link.

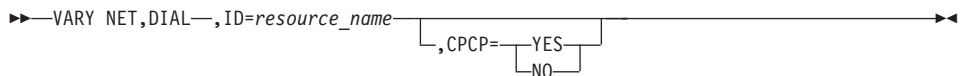
V ANS

Enable active switched SDLC lines with dial-in capability to allow or disallow an incoming call from a physical unit defined in a switched major node:



V DIAL

Establish a switched subarea connection, a switched connection to a type 1,2, or 2.1 device (adjacent link station), or a CPSVRMGR session between a dependent LU requester (DLUR) and a dependent LU server (DLUS):



V DRDS

Dynamically reconfigure an NCP or a nonswitched peripheral node:

►► VARY NET,DRDS—,ID=*dr_file_name*◄◄

V HANGUP

Take down a switched subarea connection or a switched connection to a type 1,2, or 2.1 device.

►► VARY NET,HANGUP—,ID=*link_station_name*◄◄

V INACT

Deactivate an NCP major node:

►► VARY NET,INACT—,ID=*ncp_name* ◄◄

◄◄,CDLINK=ACT
 ◄◄,CDLINK=ACT
 ◄◄INACT◄◄
 ◄◄,RMPO=NO
 ◄◄,RMPO=NO
 ◄◄YES◄◄

►►,TYPE=FORCE
 ◄◄IMMED
 ◄◄REACT
 ◄◄UNCOND◄◄

Deactivate an NCP line:

►► VARY NET,INACT—,ID=*line_name* ◄◄

◄◄,TYPE=FORCE
 ◄◄GIVEBACK
 ◄◄IMMED
 ◄◄UNCOND◄◄

Deactivate a CDRM major node:

►► VARY NET,INACT—,ID=*node_name* ◄◄

◄◄,SAVESESS◄◄ ◄◄,TYPE=FORCE
 ◄◄IMMED
 ◄◄UNCOND◄◄

Deactivate a CDRM minor node:

Vary commands

► VARY NET, INACT, ID=*node_name* [, IDTYPE=SSCP] [, SAVESESS]

[, TYPE= FORCE
IMMED
UNCOND]

Deactivate a CDRSC minor node:

► VARY NET, INACT, ID=*node_name* [, DELETE=NO] [, DELETE= NO
YES] [, IDTYPE=CP]

[, TYPE= FORCE
IMMED
UNCOND]

Deactivate the dynamic XCF local SNA major node:

► VARY NET, INACT, ID=ISTLSXCF [, TYPE= FORCE
IMMED
UNCOND]

Deactivate a dynamic XCF local SNA PU:

► VARY NET, INACT, ID=*name* [, IDTYPE=XCFCP] [, TYPE= FORCE
IMMED
UNCOND]

Deactivate a dynamic switched PU:

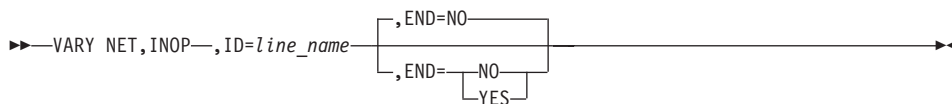
► VARY NET, INACT, ID=*pu_name* [, TYPE= FORCE
IMMED
UNCOND]

Deactivate a dependent LU requester (DLUR):

Vary commands

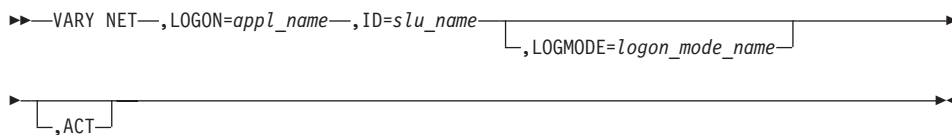
V INOP

Terminate a manual dial operation if the VTAM operator is unable to complete the call:



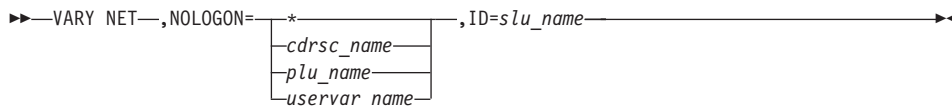
V LOGON

Create or change an automatic logon specification:



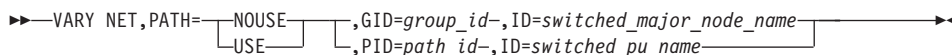
V NOLOGON

Delete an existing automatic logon specification:



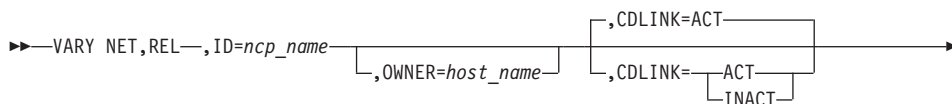
V PATH

Modify the availability of a dial-out path to a specific switched physical unit or a group of dial-out paths within a switched major node:



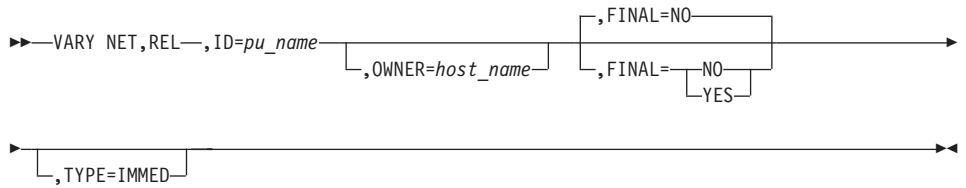
V REL

Release a previously acquired NCP:



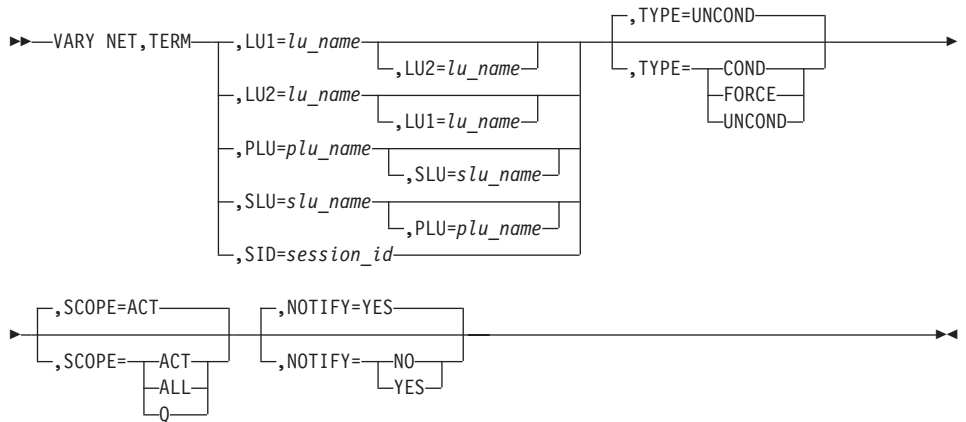


Release a PU:



V TERM

Terminate a session or group of sessions:



Vary commands

Chapter 8. Start options

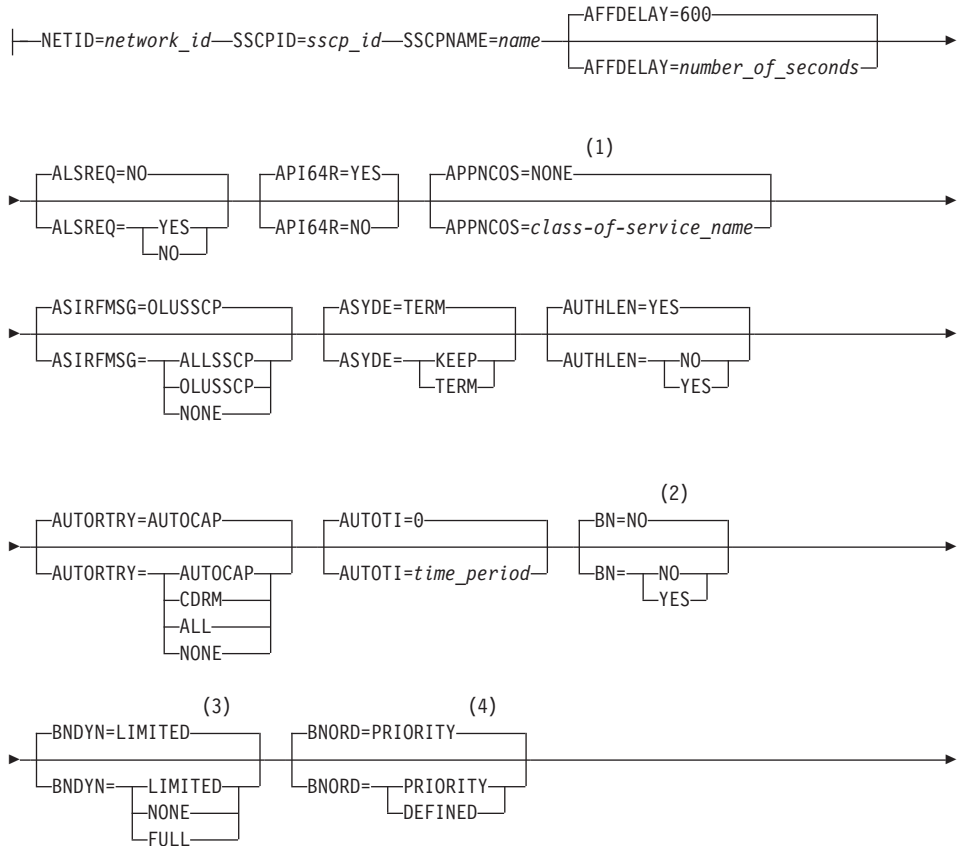
Start options are listed in this section alphabetically; however, you can code them in any order.

Precede the option list with three commas and enclose the group of options in parentheses.

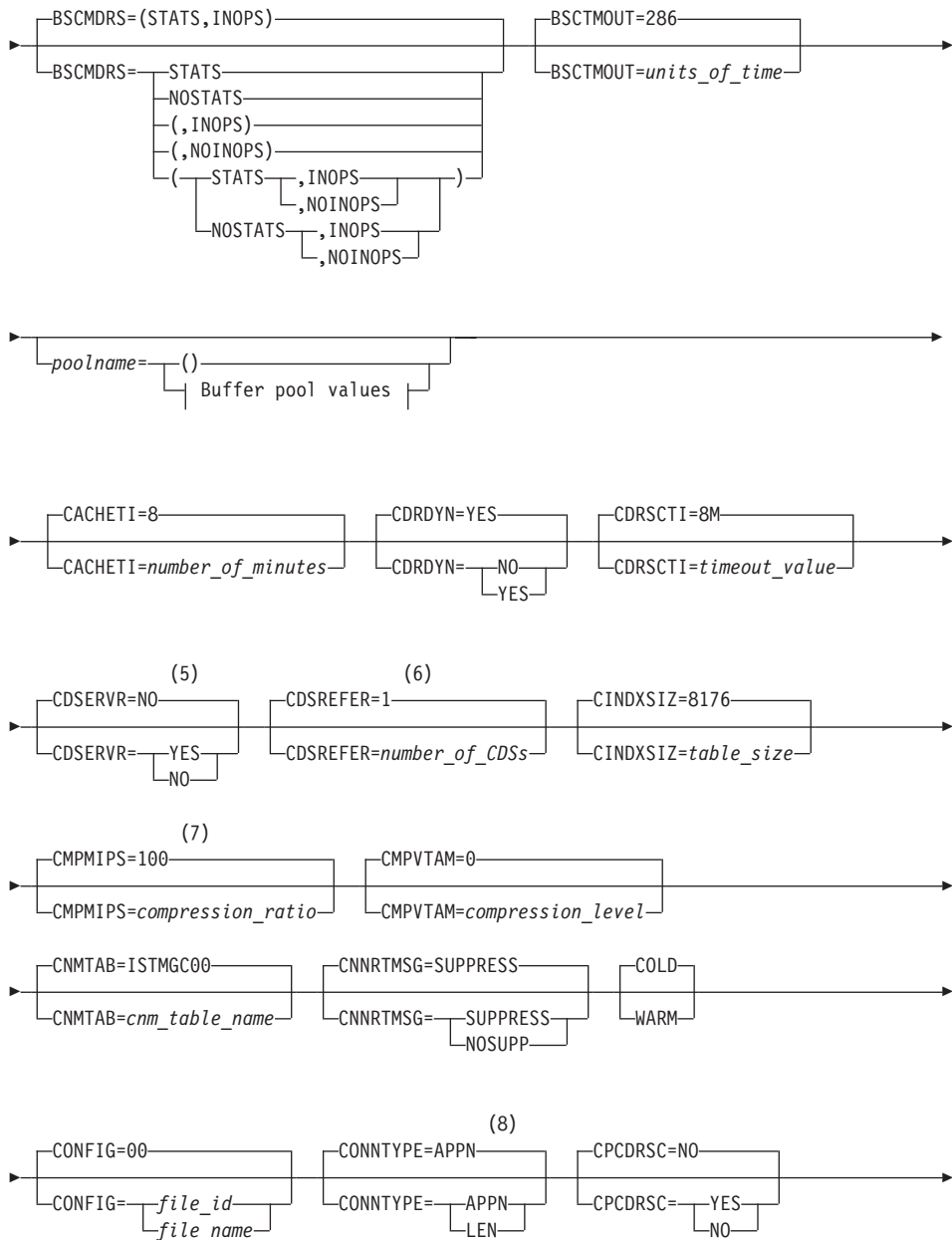
Start options that are entered on the START command must be separated by commas. Do not leave any blanks between options.

For more information on the START command, refer to *z/OS Communications Server: SNA Operation*.

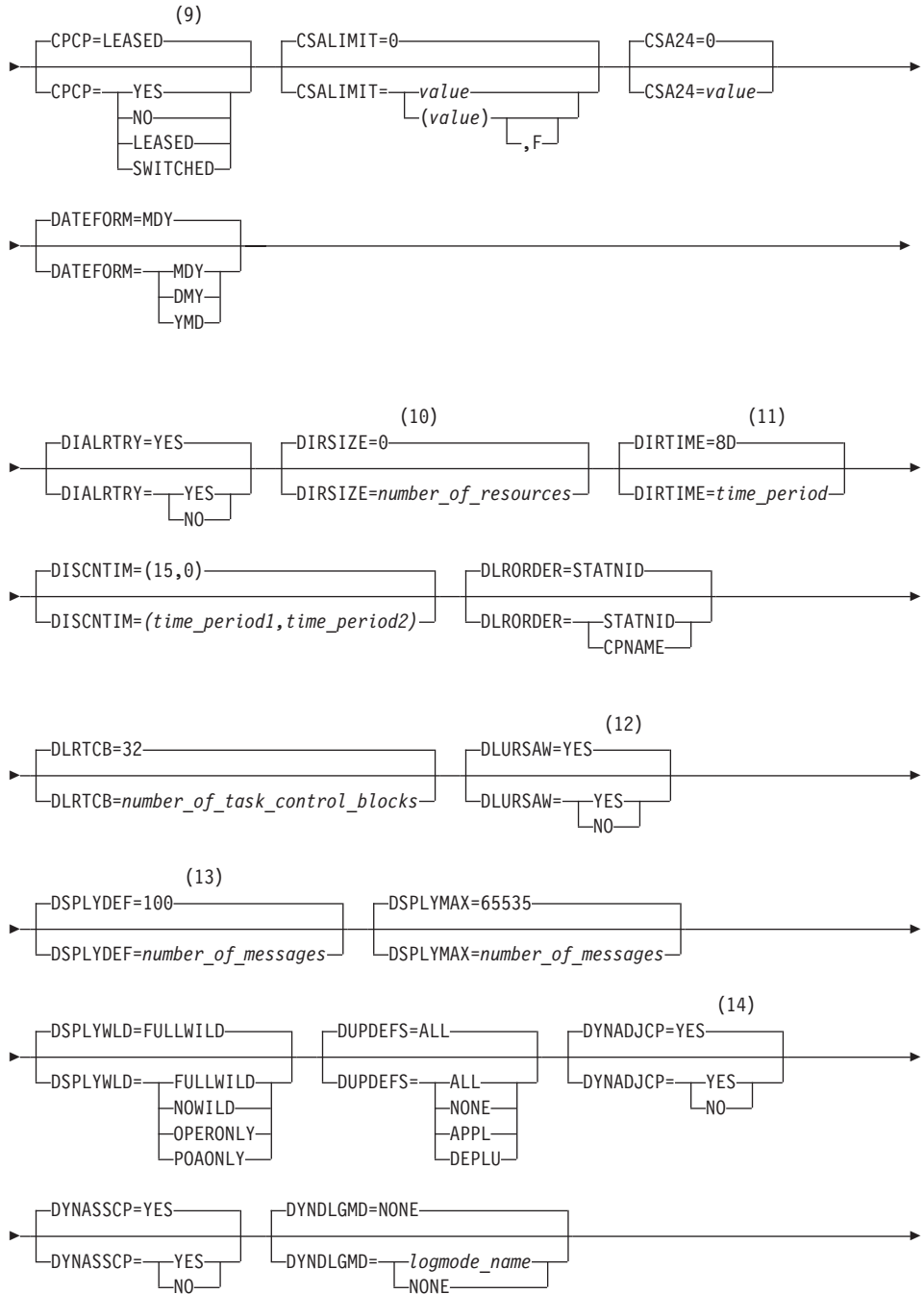
Options:



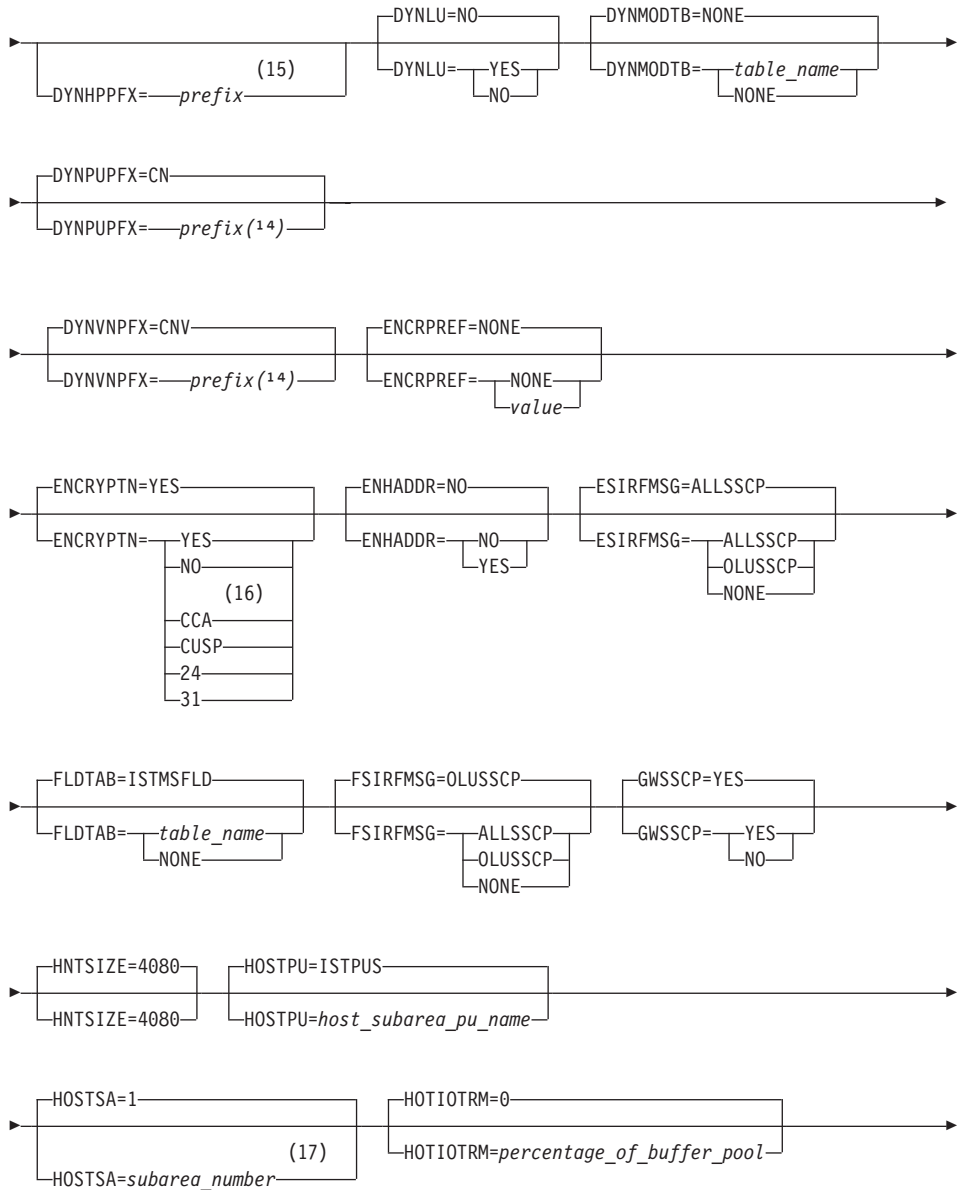
Start options

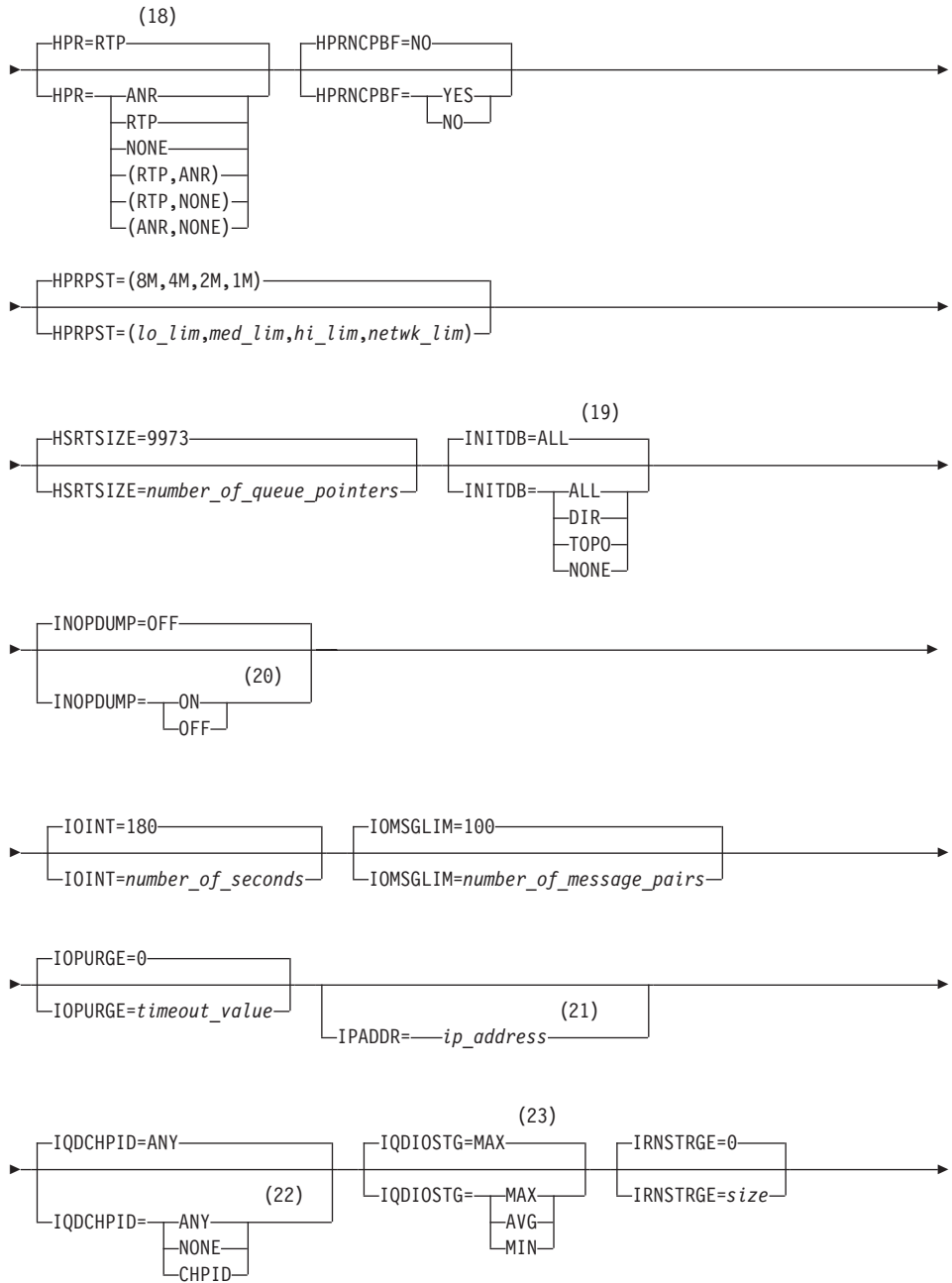


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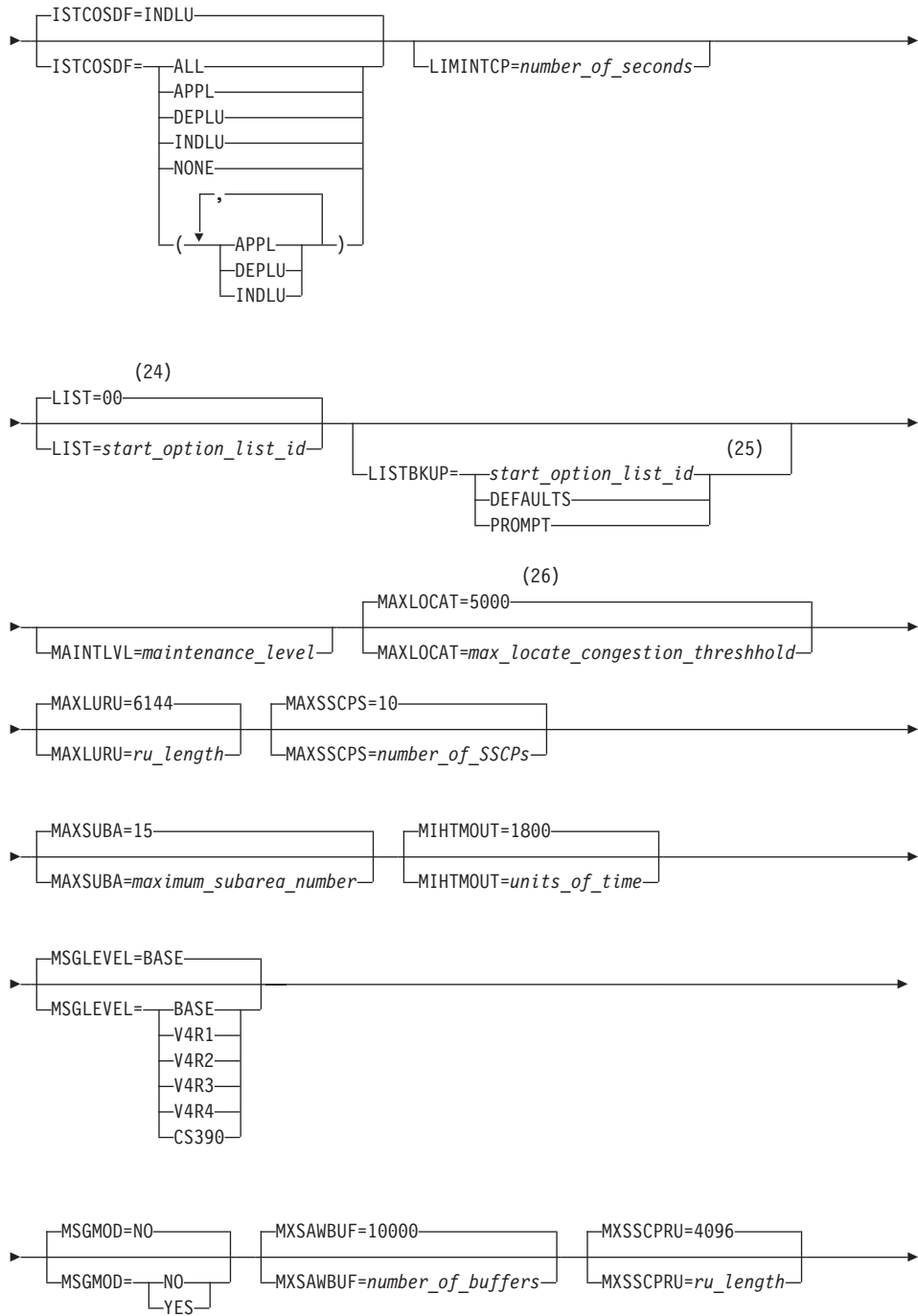
Start options

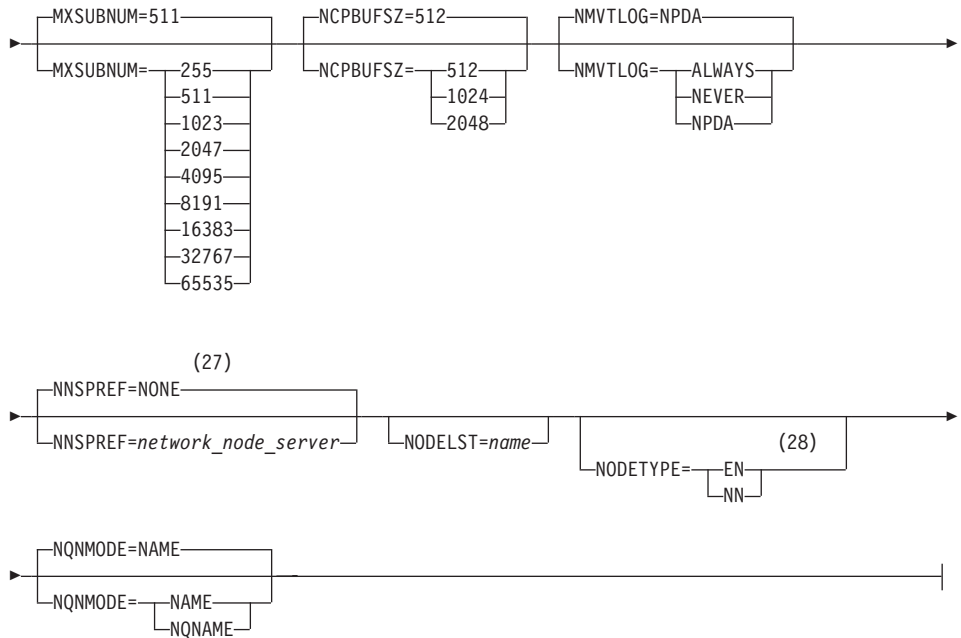




I

Start options





Notes:

- 1 APPNCOS is meaningful only if the NODETYPE start option is also used.
- 2 BN is meaningful only if the NODETYPE=NN start option is also used.
- 3 BNDYN is meaningful only if the BN=YES start option is also used.
- 4 BNORD is meaningful only if the BN=YES start option is also used.
- 5 CDSERVR is meaningful only if the NODETYPE=NN start option is also used.
- 6 CDSREFER is meaningful only if the NODETYPE=NN and CDSERVR=NO start options are also used.
- 7 The CMPMIPS start option is meaningful only if the value for CMPVTAM is greater than 1.
- 8 CONNTYPE is meaningful only if the NODETYPE start option is also used.
- 9 CPCP is meaningful only if the NODETYPE start option is also used.
- 10 DIRSIZE is meaningful only if the NODETYPE=NN start option is also used.
- 11 DIRTIME is meaningful only if the NODETYPE=NN start option is also used.
- 12 DLURSAW is meaningful only if the NODETYPE=NN start option is also used.
- 13 If the DSPLYMAX start option value is less than 100, that value is the default for DSPLYDEF.
- 14 DYNADJCP is meaningful only if the NODETYPE start option is also used.

Start options

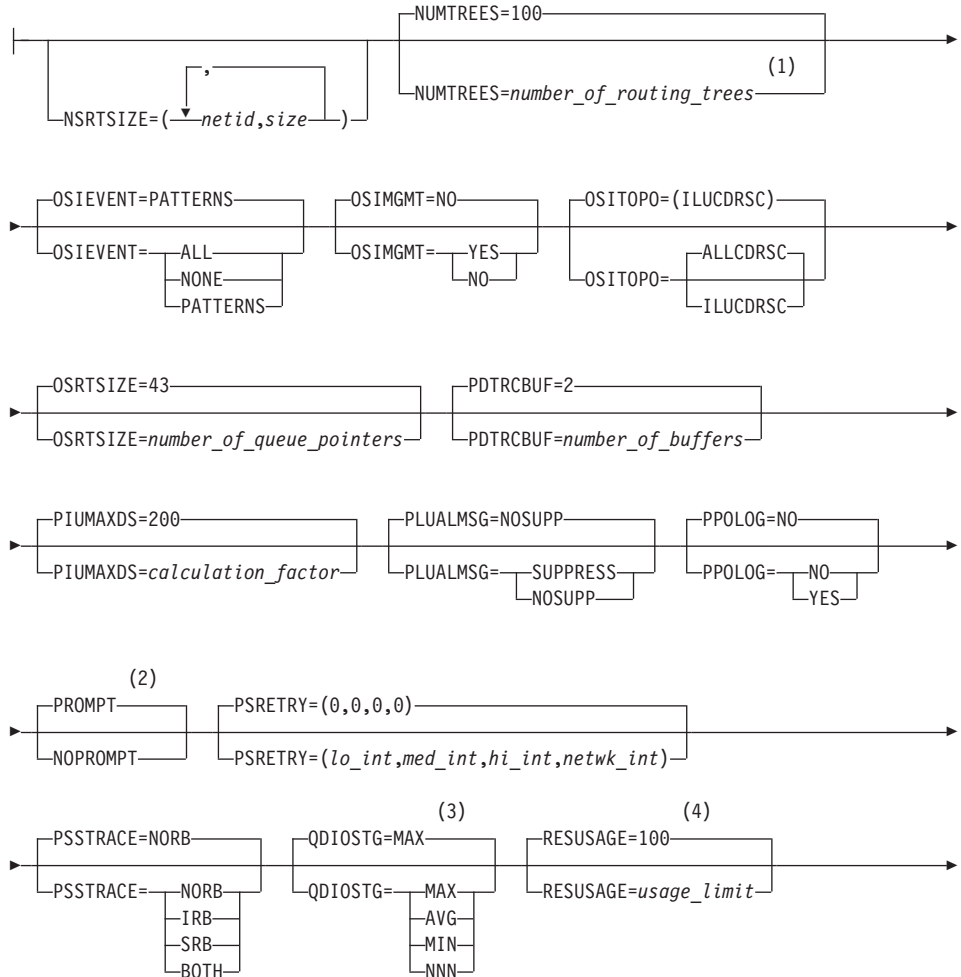
- 15 Two character prefix.
- 16 ENCRYPTN=CCA needs to be coded when Triple Des Encryption is desired.
- 17 HOSTSA specifies the subarea number of this VTAM. If HOSTSA is not coded, then a default subarea number of 1 is used.
- 18 HPR is meaningful only if NODETYPE is also used.
- 19 INITDB is meaningful only if the NODETYPE=NN start option is also used.
- 20 INOPDUMP status is propagated to resources that are defined within a transport resource list entry when the entry is activated and the TRLE InOpDump status has not been explicitly set.
- 21 The IPADDR start option must be specified in order to initiate an Enterprise Extender link.
- 22 The IQDCHPID option controls which IQD CHPID (and related subchannel devices) VTAM selects to dynamically build the iQDIO (IUTIQDIO) MPC group. The IUTIQDIO MPC group is used for TCP/IP dynamic XCF communications within this zSeries system. Although this option can be modified (and the modification will immediately be displayed) while the IUTIQDIO MPC group is currently active, any modifications will have the following effects:
 - Modified from ANY (or CHPID) to NONE — no effect on current usage but blocks subsequent activations
 - Modified from NONE to ANY (or CHPID) — no effect on current usage but allows subsequent activations
 - Modified from CHPID_X to CHPID_Y — no effect on current usage

Note: VTAM only uses the CHPID value when building the IUTIQDIO MPC group. To change CHPIDs for an active MPC group, the following must be done:

 1. All TCP/IP iQDIO (HiperSocket) devices must be stopped.
 2. Make any necessary HCD/IOCDS changes.
 3. Verify that new subchannel devices are varied online.
 4. Verify that the MPC group has deactivated (with no usage, it times out after approximately two minutes).
 5. Modify IQDCHPID=CHPID (to new CHPID).
 6. Restart the TCP/IP iQDIO device or devices.

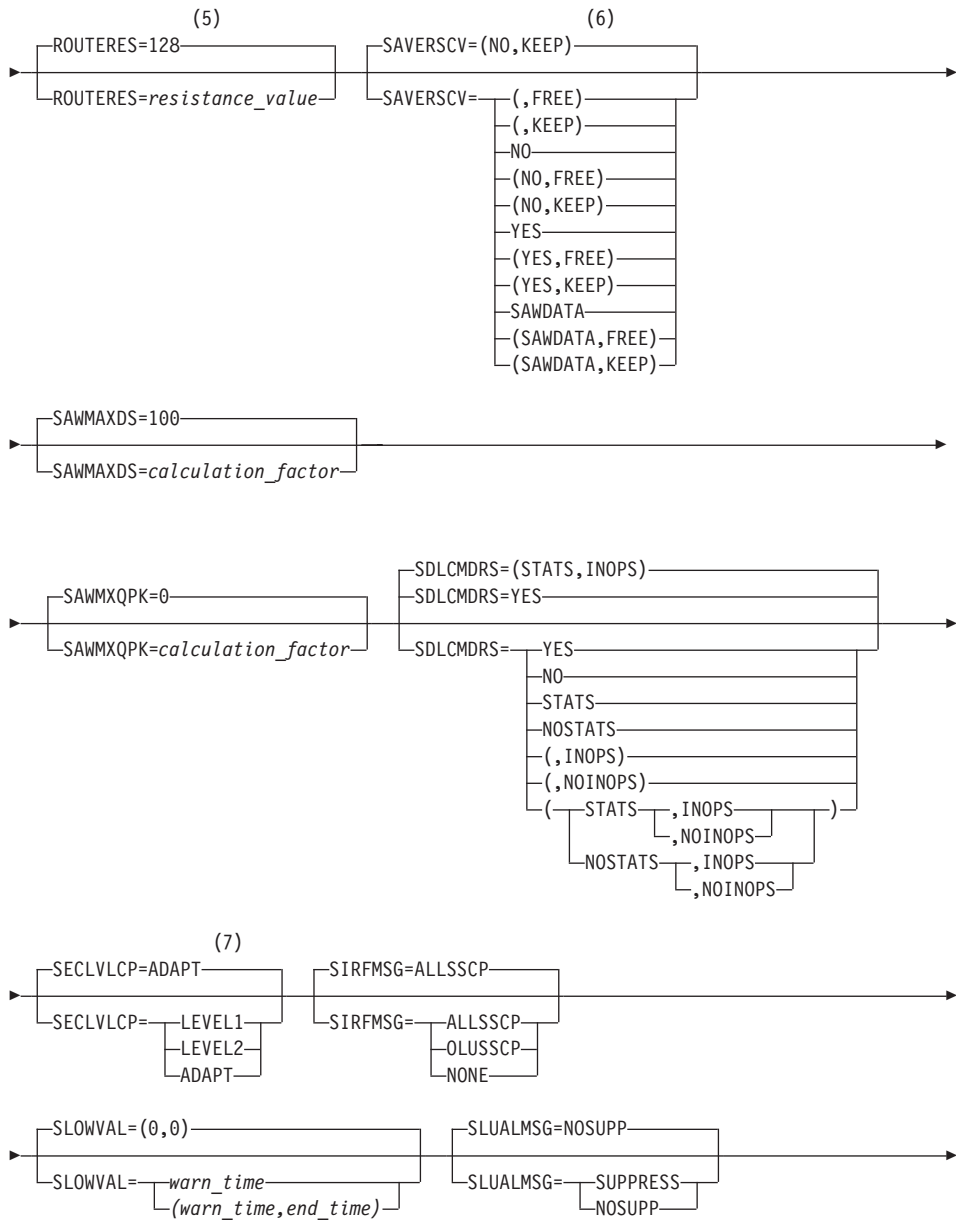
Note: In order to use iQDIO communications, the processor must have the necessary hardware support. If the processor does not support iQDIO communications, then modifications to this start option will not be accepted and the IQDCHPID option will not be displayed (displayed as ***NA***).
- 23 This option only affects iQDIO devices that use a MFS of 64k. The smaller frame sizes will always use 126 SBALs.
- 24 LIST can be entered by a VTAM operator only. If LIST is coded in an ATCSTRxx file, it is considered to be an error and is ignored.

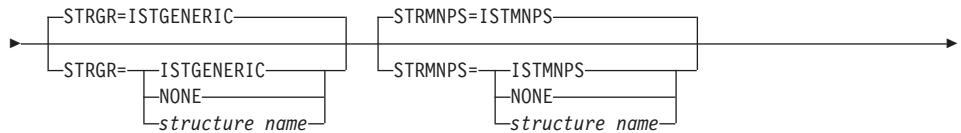
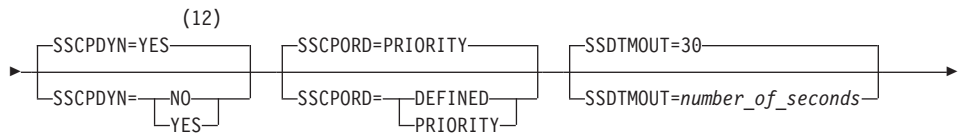
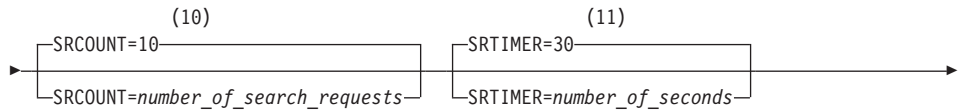
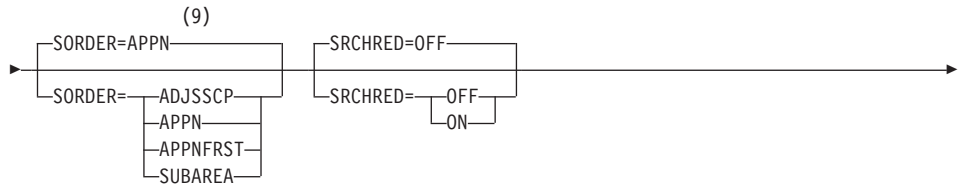
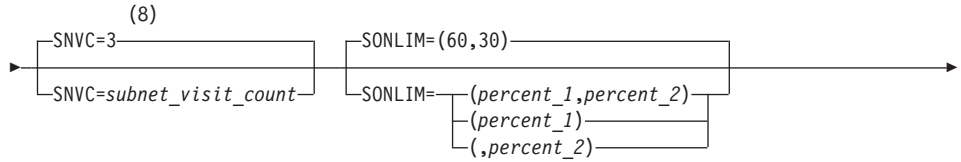
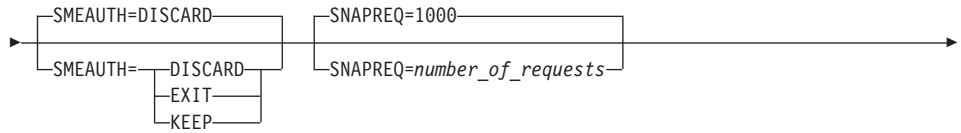
- 25 LISTBKUP can only be coded in a start option file. If you enter it on the START command or at an operator prompt, VTAM will ignore it.
- 26 MAXLOCAT is meaningful only if NODETYPE is specified.
- 27 NNSPREF can be specified only if NODETYPE=EN is specified during VTAM START processing.
- 28 NODETYPE enables APPN function. The combination of HOSTSA, NODETYPE, and SACONNS determines the configuration (subarea node, interchange node, migration data host, network node, or end node).



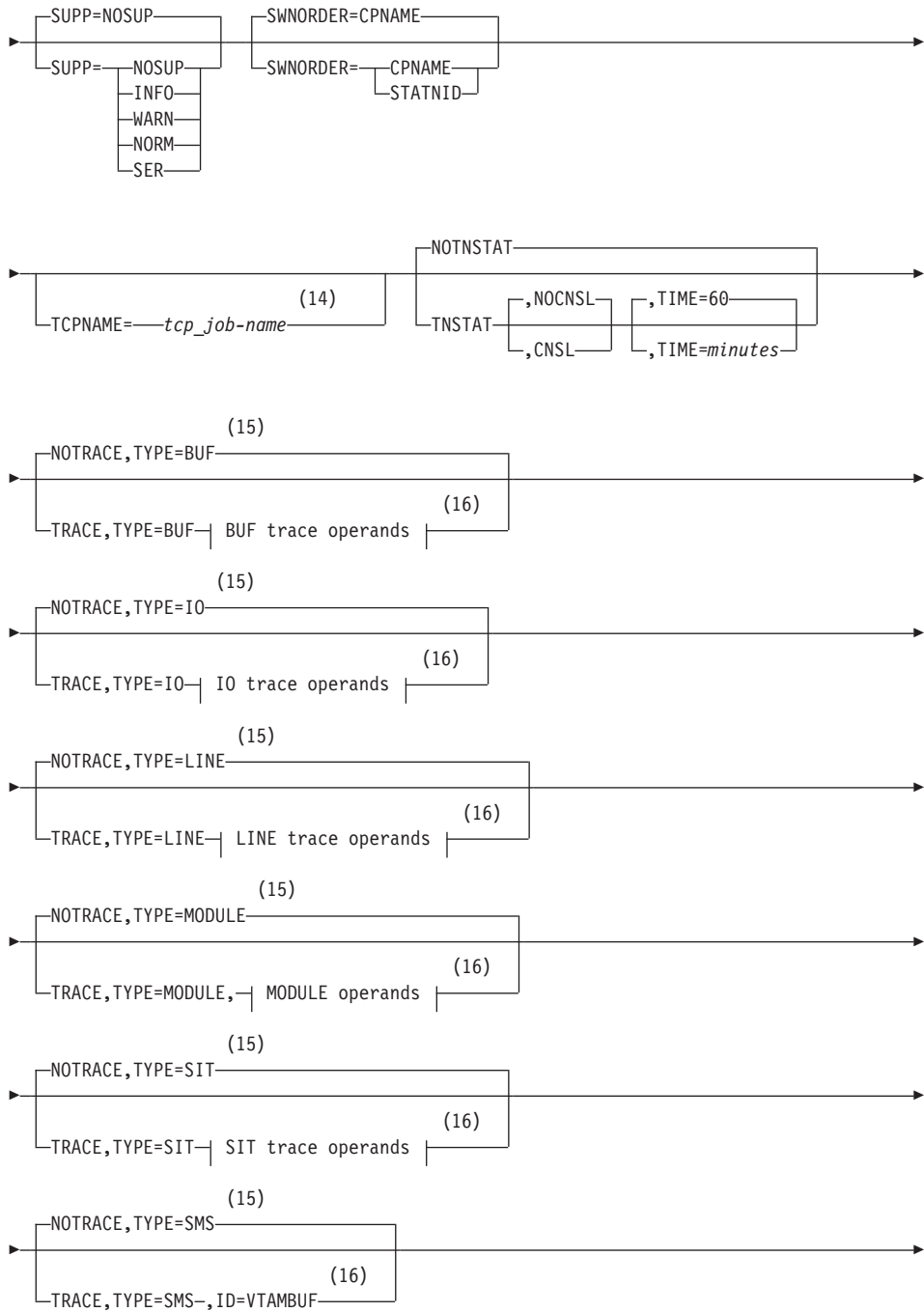
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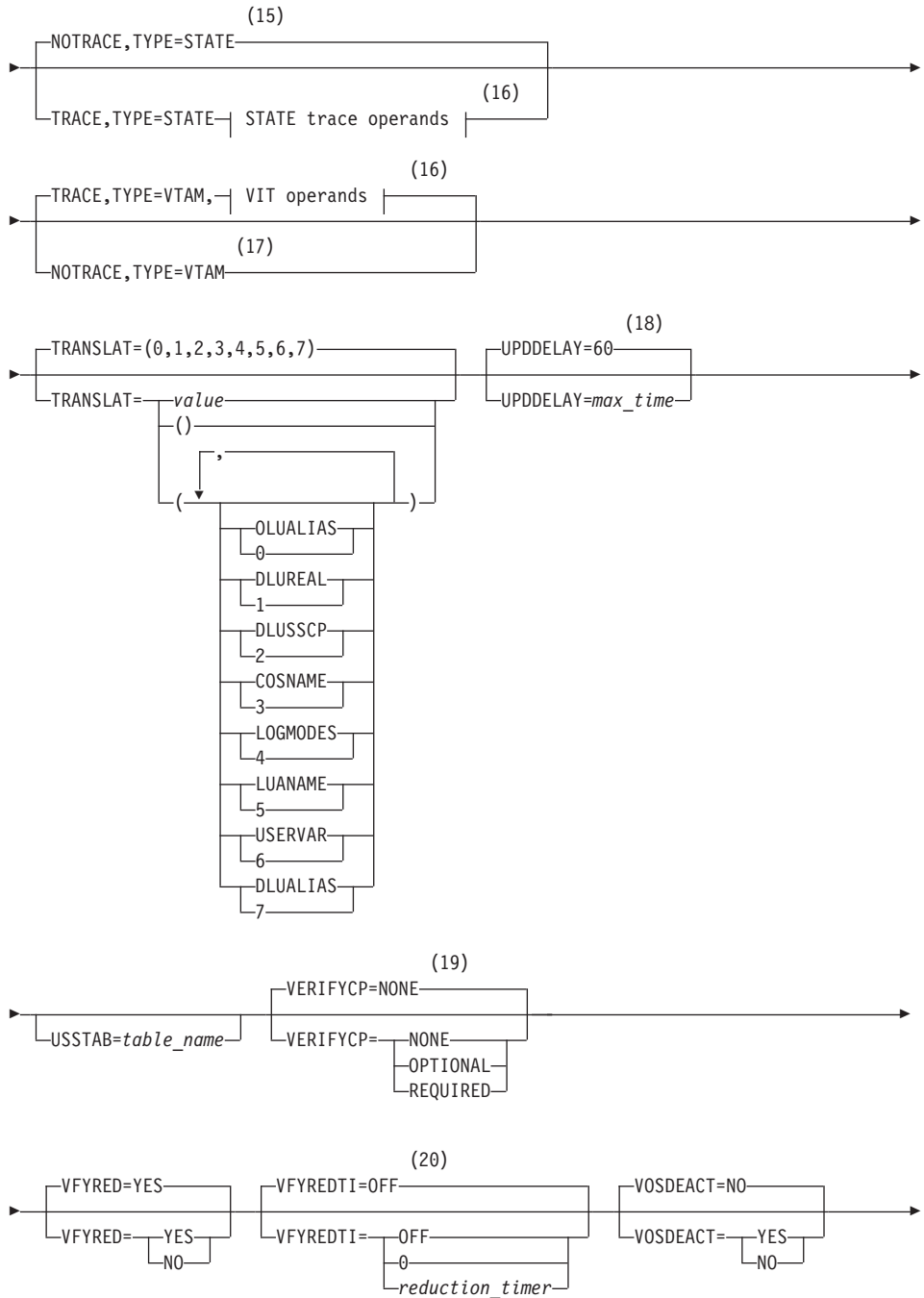
Start options



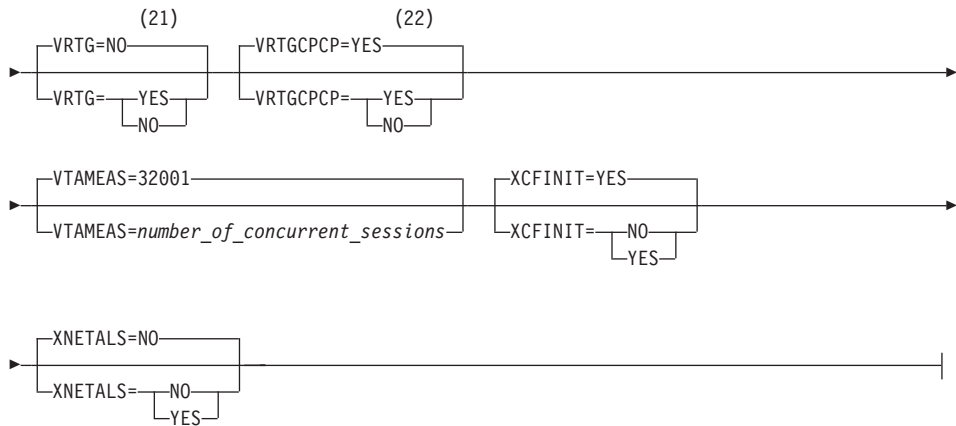


Start options

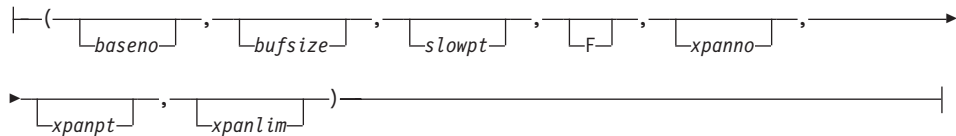




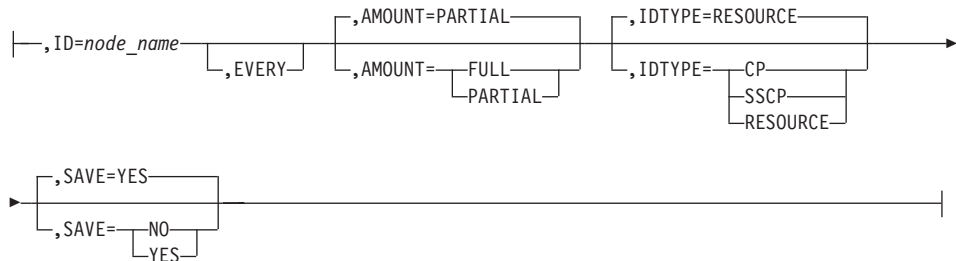
Start options



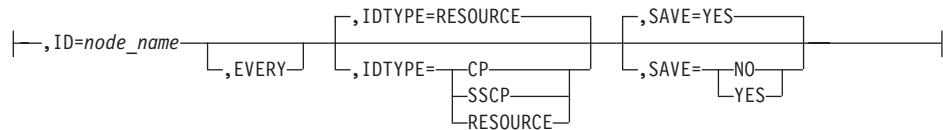
Buffer pool values:



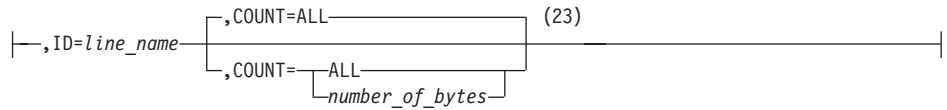
BUF trace operands:



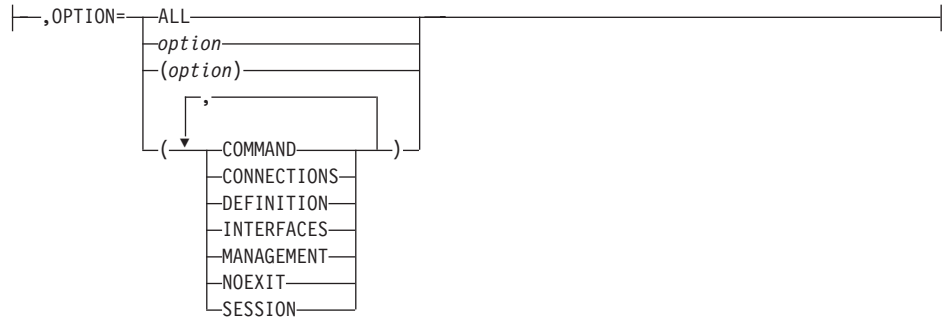
IO trace operands:



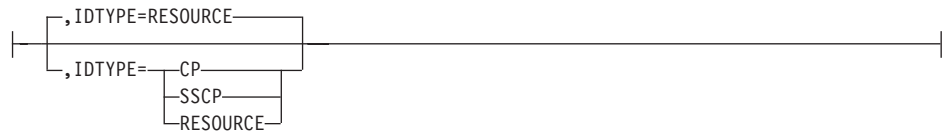
LINE trace operands:



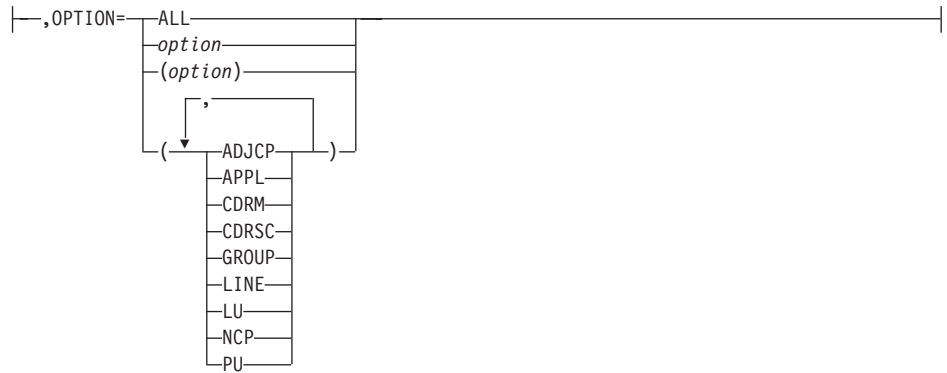
MODULE operands:



Operands used with ID:

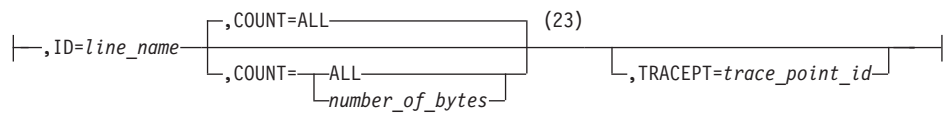


OPTION operand:



Start options

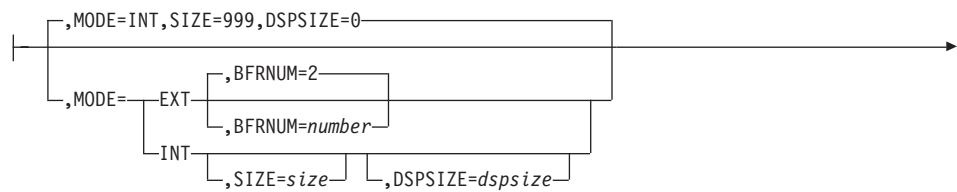
SIT trace operands:

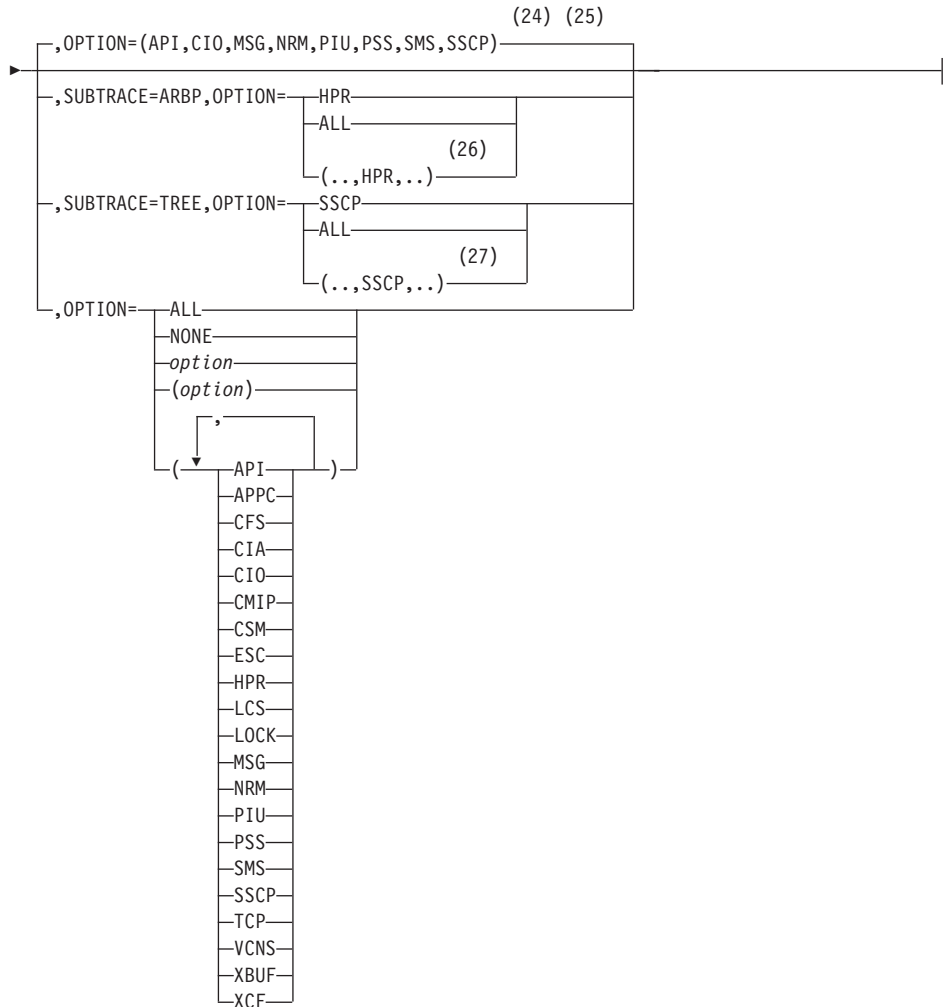


STATE trace operands:



VIT operands:





Notes:

- 1 NUMTREES is meaningful only if the NODETYPE=NN start option is also used.
- 2 A VTAM operator cannot enter the PROMPT or NOPROMPT start option; it can be coded only in ATCSTR00. The value coded in ATCSTR00 is ignored if start options are entered on the START command or if VTAM finds an error in a start list. Upon finding an error in a start list, VTAM prompts the operator so that the operator can specify the option correctly.
- 3 QDIOSTG defaults to MAX for 64-bit (z/Architecture) machines and MIN for non 64-bit machines.
- 4 RESUSAGE is meaningful only if the NODETYPE=NN start option is also used.
- 5 ROUTERES is meaningful only if the NODETYPE=NN start option is also used.

Start options

- 6 SAVERSCV is meaningful only if NODETYPE is also used.
- 7 The SECLVLCP start option is meaningful only if the NODETYPE and VERIFYCP start options are also used.
- 8 SNVC is meaningful only if the BN=YES start option is also used.
- 9 SORDER is meaningful only in an interchange node or a migration data host.
- 10 SRCOUNT is meaningful only if the SRCHRED=ON start option is also used.
- 11 SRTIMER is meaningful only if the SRCHRED=ON start option is also used.
- 12 The SSCPDPYD start option applies only for interconnected networks (that is, GWSSCP=YES is used).
- 13 SSEARCH is meaningful only if the NODETYPE=NN start option is also used.
- 14 The TCPNAME start option must be specified in order to initiate an Enterprise Extender link.
- 15 Do not use NOTRACE when starting VTAM, except to override a TRACE start option coded in a predefined list.
- 16 Code TRACE and its qualifiers on one line. Code the TYPE qualifier immediately following TRACE.
- 17 NOTRACE,TYPE=VTAM is accepted but ignored. Tracing is started with the default trace table size and the default options.
- 18 UPDDELAY is meaningful only if the OSIMGMT=YES start option is also used.
- 19 The VERIFYCP start option is meaningful only if the NODETYPE start option is also used.
- 20 VFYREDTI is meaningful only if the NODETYPE=NN start option is also used.
- 21 VRTG is meaningful only if the NODETYPE and HOSTSA start options are also used.
- 22 VRTGCPCP is meaningful only if the NODETYPE and HOSTSA start options are also used.
- 23 COUNT applies only to the IBM 3720 and 3745 Communication Controllers.
- 24 The default options apply only to MODE=INT.
- 25 PSS and SMS can be turned off.
- 26 If multiple trace options are coded in parentheses, HPR must be one of the options coded inside the parentheses when SUBTRACE=ARBP is coded.
- 27 If multiple trace options are coded in parentheses, SSCP must be one of the options coded inside the parentheses when SUBTRACE=TREE is coded.

Chapter 9. Other VTAM codes and commands

Table 2. Other VTAM codes and commands

Command type	Reference
Status Codes	Refer to <i>z/OS Communications Server: IP and SNA Codes</i> .
Dump Analysis Tool Commands	Refer to <i>z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures</i> .

VTAM commands

Part 3. Appendixes

Appendix. Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features in z/OS enable users to:

- Use assistive technologies such as screen-readers and screen magnifier software
- Operate specific or equivalent features using only the keyboard
- Customize display attributes such as color, contrast, and font size

Using assistive technologies

Assistive technology products, such as screen-readers, function with the user interfaces found in z/OS. Consult the assistive technology documentation for specific information when using it to access z/OS interfaces.

Keyboard navigation of the user interface

Users can access z/OS user interfaces using TSO/E or ISPF. Refer to *z/OS TSO/E Primer*, *z/OS TSO/E User's Guide*, and *z/OS ISPF User's Guide Volume I* for information about accessing TSO/E and ISPF interfaces. These guides describe how to use TSO/E and ISPF, including the use of keyboard shortcuts or function keys (PF keys). Each guide includes the default settings for the PF keys and explains how to modify their functions.

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EtherStreamer	SP
Extended Services	SP2
FAA	SQL/DS
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GDDM	TURBOWAYS
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IBM	Virtual Machine/Extended Architecture
IBMLink	VM/ESA
IBMLINK	VM/XA
IMS	VSE/ESA
IMS/ESA	VTAM
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