Table 5-1. Diagnostic Terminal Commands

Command	Meaning	Usage	SMS7000>
acc	Alarm/Statistics Clear	Used alone to clear all alarm relays and statistics. Also see **arc**.	**acc**
alarm	Alarm	Used alone to list configured alarms. Used as a modifier following ls (list) to list each alarm and details about its configuration.	**ls alarm**
amezi	Asynchronous Mezzanine	Used as a modifier following ls (list) to Active Mezzanine Networks with a brief summary of their configuration.	**ls amezi**
anc	Active Node Controller	Used alone or preceded by ls (list) to list Active Node Controller modules in the system. Used with rename (rename) and renamebyaddr (rename by address) to rename Active Node Controller modules.	**ls anc**
arc	Alarm Clear	Used alone to clear all alarm relays. Also see **acc**	**arc**
art	Alarm Test	Used alone to test alarm relays. After the test, the alarms are cleared; statistics remain unchanged.	**art**
as	Alarm Status	Used alone to list configured alarms, number of occurrences, and assignment (Major, Minor, µProc).	**as**
assign	Assign	Used with Destination and Source names to assign a Source to a Destination. This is not a Take operation, but rather an implementation of an Assignment System if it has been configured using the GUI. An assignment system allows specified sources to be assigned to a destination or destinations. Thereafter, the source can be connected to the destination only if it is on the assignment list. Assignment can be used as a condition of tally if so flagged when configuring the Tally System using the GUI.	**assign DestName SrcName**
btn	Button	Used as a modifier following the pr (print) command and followed by a specific control panel template name to display the Keypad Set name, specific prefixes assigned to buttons (display arrangement matches panel button arrangement), Suffix Set, and specific suffixes assigned.	**pr btn TemplateName**
camezi	Configured Amezis	Used alone to get a count of Amezis configured, Amezi limit. Used as a modifier following ls (list) to view Amezi configurations.	**ls camezi**
chopint	Chop Interval	Used alone to examine the current chop interval (see the chop description preceding), or followed by a numeric modifier (from 0 through 16) specifying the interval in seconds. An interval of 0 (zero) would disable the chopping function.	**chopint 10**
clrtlfeedtodst	Clear tieline usage by a destination	Used to clear tielines used by a destination.	**clrtlfeedtodst dstname**
clearallprotects	Clear All Protects	Used alone to clear all protects in the system.	**clearallprotects**
cnc	Configured Node Controller	Used by itself or preceded by ls (list), displays the configured node controllers used, the limit, the number and name of each, and reference channel and status information.	**ls cnc**
coproc	Coprocessor	Used to show the coprocessors in the system. ls coproc provides the coprocessors and their configuration information (I/F type, redundancy type, slot, mezzanine position)	**ls coproc**
csg	Client Server Group	Used alone to list Client/Server Panel groups. Used as a modifier following ls (list) to list Client/Server Panel groups by number. Used as a modifier following pr (print) and preceding a Client/Server Panel group name to list information about that group specifically.	**(list all groups): ls csg (list specific group): pr csg groupname**
diaglog	Diagnostic Log	Used as a modifier after the pr (print) command to list the Series 7000 Diagnostic Log.	**pr diaglog**

diagnose	Diagnose	N/A	**N/A**

Command	Meaning	Usage	SMS7000>
dirtly	Direct Tally	Used alone to list names of Tally Modules with direct tally assignments. Used as a modifier after ls (list) to list names and addresses of Tally Modules with direct tally assignments.	**ls dirtly**
dmacount	DMA Count	Used as a modifier after clr to clear DMA counts which are listed in the system status (SS) display.	**clr dmacount**
dmtx	Data Matrix	Used alone or as a modifier after ls (list) to list number, limit, names, and order of assignment of Data Matrices. Used as a modifier after pr (print) and followed by a specific data matrix name to list the forward and reverse levels.	**pr dmtx MtxName**
drtst	Dual Reference Test	Used for debugging the monitor board dual reference sensing. reset (or no value) =stop test, changes= print changes, (note this is not implemented yet), all= print all once, forceauto, force auto mode, off=turns off code in NC, diags= sends values to registers (2,3,4,5) on monitor (ex. diags 2 3 4 5).	**drtst all**
dst	Destinations	Used alone to list names of all destinations. Used as a modifier following ls (list) to list destinations by level name. Used as a modifier following pr (print) to list destinations by virtual matrix bitmap.	**pr dst**
dstassign	Destination Assignments	Used alone or as a modifier following ls (list) to list destination assignments by number. Used as a modifier following pr (print) to list destination assignments in greater detail.	**pr dstassign dstname**
dststat	Destination Status	Used, followed by a Destination name (and optional specified level) to print status of a Destination.	**dststat dstname**
exception	Exception	Used as a modifier following ls (list), clr (clear), or set to list, clear, or set exception objects.	**clr exception**
excl	Exclusions	Used alone or as a modifier following ls (list) to list exclusions (sources excluded from selection on particular destinations) by number. Used as a modifier following pr (print), and followed by a specific destination name to see exclusions for that destination.	**pr excl DstName**
ext	External Devices	Used as a modifier following ls (list) to list active external devices communicating over the 7000 buses (automation systems, other routers, etc.).	**ls ext**
gncv	Get Active Node Controller Version	Used alone or as a modifier preceding an Active Node Controller index number to retrieve the version number of the software on that Node Controller.	**gncv 2**
gt	Get	Used alone to view date and time settings.	**gt**
h	Help	Used alone to view general system help. Used preceding specific commands to view information about that command specifically.	**h anc**
inuse	Inuse	Used to list TieLine usage information.	**ls inuse tl**
krtr	Kaleidoscope or Kadenza Router	Used alone or as a modifier following ls (list) to view the number, limit, names, and order of assignment of Kaleidoscope or Kadenza interfaces. Used as a modifier following pr (print), and followed by the specific interface name to view input assignments within that interface.	**ls krtr or, pr krtr KISS/ VISS**
lm save default	Limit Save Default	Saves the current exception severity limit for exception display, as the default used after system initialization. See Diagnostic Messages later in this section.	**lm save default**
lm save severity	Limit Save Severity	Saves the current exception severity limit for exception display, as the system default used during system initialization. See Diagnostic Messages later in this section.	**lm save severity**
lm severity	Limit Severity	Used alone to list current exception severity limit for exception display. Used followed by severity level name, off, or default to set level, disable system, or set default. See Diagnostic Messages later in this section.	**(view setting): lm severity (set limit to Error): lm severity error**

logout	Log Out	If using TelNet from a PC or workstation, use logout to log out of the Diagnostic Interface.	**logout**

Command	Meaning	Usage	SMS7000>
ls	List	Used preceding many topics to list pertinent information. Enter h ls for a list of topics which work with the list command.	**ls anc**
lvl	Level	Used alone or as a modifier following ls (list) to list levels and associated virtual matrices. Used as a modifier following pr (print), and followed by a specific level name to view information about that level.	**pr lvl LvlName**
mez	Mezzanine	Used as a modifier following ls (list) to list mezzanine board slot, location, ID, and type.	**ls mez**
mezconfig	Mezzanine Configuration	Used as a modifier following ls (list) to list mezzanine board slot, location, ID, type, and configuration information.	**ls mezconfig**
monitor	Monitor	Used preceding a destination name to take it to the monitor output. A control panel configured to control the monitor crosspoints should be used for this function.	**monitor DstName**
monitorcon	Monitor Connection	Used followed by a Physical Matrix name, followed by a Physical Matrix output number to take it to the monitor output. A control panel configured to control the monitor crosspoints should be used for this function.	**monitorcon PMName PMOutput#**
off	Off	Used as a modifier following bs (Broadcast Status Task), ds (Destination Status Task), log, netevent (Net Event Task), poll (Polling Task), sc (Spit Connect Task), or spit (Spit Task) to deactivate the specified task.	**netevent off**
on	On	Used as a modifier following bs (Broadcast Status Task), ds (Destination Status Task), log, netevent (Net Event Task), poll (Polling Task), sc (Spit Connect Task), or spit (Spit Task) to activate the specified task.	**netevent on**
pm	Physical Matrices	Used alone or as a modifier following ls (list) to list the number, limit, name, configuration, and assignment order of Physical Matrices. Used as a modifier following pr (print), and followed by a specific physical matrix name to display a map of the active crosspoints for that matrix.	**pr pm PMName**
pr	Print	Used as a modifier preceding many item types (anc [active node controller], cnc [configured node controller], etc.,) to display information about that item type.	**pr cnc**
prog	Program	Used as a modifier preceding fileName, deviceType, and deviceSubtype (if needed) to program application code into the flash memory of certain devices. Additional information see *prog Command on page 5-10*	**prog FileName cp bps**
pxg	Programmable X-Y Groups	Used to list PXY panel groups.	**ls pxg**
rdstassign	Read Destination Assignment	Used, followed by a file name, to read in destination assignments from a specified file.	**rdstassign "filename"**
read	Read	Used as a modifier followed by a configuration file name to read the configuration file in Flash memory of the currently active MCPU into the RAM memory of that same MCPU. (The system operates using the configuration in RAM.) Also see the **wc**command.This command will completely erase the existing configuration in RAM. Be sure this is the intent before exercising this command.	**read c.cl**
\Reboot	Reboot	Reboots the Series 7000 Control System. Used alone. System will reboot. This command will reboot your Series 7000 Control System. Be sure this is the intent before exercising this command.	**Reboot**
room	Room	Used alone or as a modifier following ls (list) to list rooms. Used as a modifier following pr (print), and followed by a specific room name to list information about that room.	**pr room RoomName**
roomassign	Room Assign	Used as a modifier following pr (print), and followed by a specific room name to list room assignments.	**pr roomassign RoomName**
rtc	Real Time Clock	Used alone to display current real-time clock information.	**rtc**

s	Status	Used as a modifier preceding a specific destination name to display source assigned to that destination (status), and protect, chop, downstream, and downstream chop status.	**s DestName**

Command	Meaning	Usage	SMS7000>
slot	Slot	Used as a modifier followed by a slot number (1-10) to determine what mezzanine cards are present on the CIF module in that slot. Used as a modifier followed by a slot number (1-10) and switch to initiate a manual switchover of primary and redundant CIF modules in the slot-pair. Additional information see *slot Command on page 5-11*.	**slot Slot# switch**
st	Set	Used alone to examine system date and time. Used as a modifier preceding date and time to set system date and time. Date, Time format: mm dd yyyy hh mm ss. Additional information see *st Command on page 5-12*	**st 11 24 1994 08 56 37**
svo	Salvo	Used as a modifier following ls (list) to list salvos. Used as a modifier following pr (print), and followed by a specific salvo name to list information about that salvo.	**pr svo SalvoName**
svps	Salvo Permission Sets	Used to list (ls) all salvo permission sets by number; or display all permitted salvos in a specified set by typing **pr svps**followed by the specific set name in quotes	**ls svps or pr svps Setname**
switch	Switch	Used as a modifier following **pg slot#**to switch active CIF in a redundant pair of CIFs.	**pg 1 switch**
switchanc	Switch Active Node Controller	Used as a modifier preceding a configured node controller name to copy the configured node controller data into the specified active node controller.	**switchanc CncName**
switchmcpu	Switch Active MCPU	Used alone to switch control from one MCPU to the other in a Fault Resistant Unit pair (primary and backup MCPUs).	**switchmcpu**
tl	Tie Lines	Used alone or as a modifier following ls (list) to list Tielines.	**ls tl or ls inuse tl**
tltype	TieLine Type	Used alone or as a modifier following ls (list) to list Tieline Types.	**ls tltype**
tlydst	Tally Destinations	Used alone or as a modifier following ls (list) to list tally destinations. Used as a modifier following pr (print), and followed by a specific tally destination name to list information about only that destination.	**pr tlydst DstName**
tlymod	Tally Module	Used alone or as a modifier following ls (list) to list Tally Modules. Used as a modifier following pr (print), and followed by a specific tally module name to list information about only that tally module.	**pr tlymod TallyModName**
tlysrc	Tally Source	Used alone or as a modifier following ls (list) to list tally sources. Used as a modifier following pr (print), followed by a specific tally source name to list information about only that tally source.	**pr tlysrc SrcName**
tms	Timed Salvos	Used alone or as a modifier following ls (list) to list Timed Salvos. Used as a modifier following pr (print), and followed by a specific timed salvo name to list information about only that timed salvo.	**pr tms TSalvoName**
tpl	Template	Used alone or as a modifier following ls (list) to list control panel templates. Used as a modifier following pr (print), and followed by a specific template name to list information about only that template.	**pr tpl TemplateName**
ver	Version	Used alone to display MCPU application version. Used as a modifier preceding **all**to display all reportable software versions. Used as a modifier preceding one of several topics to display the software version of that particular item. For additional information see *ver Command on page 5-12*.	**ver cp**
vm	Virtual Matrix	Used alone or as a modifier following ls (list) to list Virtual Matrices.	**ls vm**
wc	Write Configuration	Used as a modifier preceding a file name to copy the configuration in RAM on the active MCPU to Flash memory on that same MCPU. The file name **c.cl**should be used. Additional information see *wc Command on page 5-10*.	**wc c.cl**
wdstassign	Write Destination Assignment	Used, followed by a file name, to write destination assignments to a specified file.	**wdstassign "filename"**

Additional Command Information

wc Command

In addition to the information in Table 5-1 on page 5-6 the following applies to the wc command. The configuration MCPU Flash system file name c.cl is used when the MCPU is cold-started. The file c.cl (no other file name will work) is copied from Flash memory to RAM when cold-started before the file is executed.
Only the configuration file loaded into RAM is used for active system operation.
The Flash file system can contain other configurations (named differently from c.cl) but only c.cl will be copied in the event of a cold-start. The read command can be used to copy these other files to RAM if you wish to use them.
If there are multiple files in Flash, it is possible to use up Flash memory and have inadequate room remaining when attempting to store a new configuration. If so, the system will attempt to load the new file, signaling an alert only when memory is actually used up and thereby increasing any system downtime involved in loading the new configuration. See *Recovery Procedure When Flash Memory is Overfilled* in Section 4.

prog Command

In addition to the information in Table 5-1 on page 5-6, the following applies to the prog command. For example, control panel device type would be cp (control panel); subtype might be bps (button per source), ucp (universal control panel), mb8 (multibus 8), umd1, 2, or 3 (under monitor displays), 129 (cubicle-or-studio panel), or 130 (machine control only). You can list programs by entering ls prog. ALL of the same type devices connected to the MCPU will be programmed with each use of this command. This command may be used in software upgrades.
FileName: The name of the hexadecimal (hex) file to be downloaded. It MUST be in Motorola™ hex format. Any valid path may be specified. If none is, the default path is **`FM0:/`**. The quotation marks should be used. The parser may have difficulty with periods and paths.
DeviceType: The name of the device type to be programmed. Default names are cp or panel, and nc. If the name of the device to be programmed is not recognized, the numeric value must be used. Entering the program command without this argument will display the list of valid type names (a dummy filename may be entered). Device Subtype: The name of the device subtype to be programmed. If the name of the device type to be programmed is not recognized, the numeric value must be used. Entering the program command without this argument will display the list of valid type names (a filename and device type must be entered). If the device type is nc (node controller), the subtype need not be entered (it defaults to subtype 0). The subtype is required for control panels.

Note
All command line parse errors are reported and the usage syntax is displayed. For any error in the device type or subtype argument, a context-sensitive list of valid tokens are also displayed. Other errors, such as missing or wrong format file, are reported and the command is aborted. Progress reports are displayed during programming. The system diagnostic prompt will not be re-displayed until programming is complete. Once programming is started for any device, there is a 15 second time out for programming messages. This means that if the device fails during programming and does not respond, you will have to wait up to 15 seconds for a response.

slot Command

In addition to the information in Table 5-1 on page 5-6, the following applies to the slot command. The slot command may also be used to download a file into a specified Mezzanine board.

```
SMS7000> slot slot# mez mez# mezname gsc/asy file
```

Where: slot# is the number of the CIF frame slot; mez# is the number of the Mezzanine board to be affected; mezname is the Mezzanine board name; gsc means the Mezzanine board is a Global Serial Channel Mezzanine or asy means the Mezzanine board is an Asynchronous Mezzanine; and file is the (optional) name of the executable file to download. If the file name is left off, a default file name is used or, if parameters have been previously defined for the mezzanine, the previously defined file name is used.

```
SMS7000> slot slot# mez mez# mezname gsc/asy (csos.bin)
```

May also be used to remove parameter definitions for a mezzanine.

```
SMS7000> slot slot# mez mez# rm
```

Where: slot# is the number of the CIF frame slot; mez# is the number of the Mezzanine board to be affected; rm removes the definitions.

The Series 7000 Control Frame contains ten module slots numbered 1 through 10. The redundant (pair of) MCPUs reside in slots 9 and 10; the other eight slots are used for Communications Interface (CIF) modules. Each odd/even slot pair (i.e., 1&2, 3&4, 5&6, 7&8) are used to contain redundant pairs (primary and secondary) of CIF modules to provide fault tolerance.

Each CIF can support up to four mezzanine boards (Global Serial Channel or Asynchronous Mezzanines) of various communications functionality. Both CIF modules in a pair must be configured with identical mezzanine hardware. Mezzanines on a CIF module are numbered from 1 through 4 according to their physical position. (See the *Installation Manual*.)

Each mezzanine, when initialized, corresponds to a network and is assigned a network address. The mezzanine name (assigned through the GUI) is also assigned to the network. The network (the devices with which the Mezzanine communicates and the mezzanine itself) uses the same name as that assigned to the mezzanine for purposes of easy identification in system commands and messages.

st Command

In addition to the information in Table 5-1 on page 5-6, the following applies to the st command.

Where:
mm = month of year (01 through 12)
dd = day of month (01 through 31)
yyyy = digits of year
hh = hour of day (24 hour clock, 01 through 24 valid)
mm = minutes past hour (01 through 59)
ss = seconds past minute (01 through 59)

ver Command

In addition to the information in Table 5-1 on page 5-6, the following applies to the ver command.
sms = primary MCPU application net = active networks cp = control panels cpos = control panel operating system EEPROM nbx = node controller operating system EEPROM nc = node controller application

If a specific item (i.e., control panel) name is used following one of the above, the software version for only that specific item will be reported.

Diagnostic Terminal GUI Commands

Table 5-2 contains Diagnostic Commands that are usually handled by using the GUI. The only time that these commands should be used is if the GUI cannot connect to the router.

Table 5-2. Diagnostic Terminal GUI Commands

Command	Meaning	Usage	SMS7000>
confp	Configure Panel	Used followed by a specific control panel name and a specific control panel template name to download that template to that panel. The echop (Echo Panel) command does the opposite.	**confp PanelName PanelTemplate**
connect	Connect	Used followed by ANC index, input, output, and slice to connect the input and output referenced. Allows a Take by specifying Physical Matrix input and output numbers rather than source and destination names.	**connect NCName Input# Output# Slice#**
cp	Control Panel	Used as a modifier following the ls (list) command to list the number of panels used, the current limit, and control panel type and name. Used as a modifier following the pr (print) command, and followed by a specific control panel name to list control panel address and name.	**pr cp PanelName**
deassign	Deassign	Used followed by a specific destination name followed by a specific source name to remove the source from assignment to that destination. (See Assign.)	**deassign DstName SrcName**
dev	Device	Used alone or as a modifier after ls (list) to list number of devices, maximum configured limit, and device names.	**ls dev**
dxs	Destination Exclusion Sets	Used alone or as a modifier following ls (list) to list destination exclusion sets by number. Used as a modifier following pr (print), and followed by a specific destination exclusion set name to list destinations in that set.	**pr dxs ExcSetName**
echop	Echo Panel	Used followed by a specific control panel name, followed by a specific control panel template name to copy the control panel configuration to the specified template. Configure Panel (confp) does the opposite.	**echop PanelName TemplateName**
kst	Keypad Sets	Used alone or as a modifier following ls (list) to list the number, limit, order or assignment, and names of keypad sets. Used as a modifier following pr (print), and followed by a specific keypad set name to list that keypad assignment set.	**pr kst KpdSetName**
prot	Protect	Used as a modifier following pr (print) to display protects by destination and level. Used as a modifier preceding a specific destination name, followed by a specific level name to protect the specified destination. Also see the unprot command.	**prot DstName LvlName(s)**
rename	Rename	Used as a modifier preceding cp (control panel) or nc (node controller), followed by the specific old name, followed by the specific new name to rename a device.	**rename cp OldName NewName**
renamebyaddr	Rename by Address	Used as a modifier preceding a device network:address, followed by a specific new name to rename that device. (Use ls dev [list devices] to obtain network and address. Remove leading zeros from the network and address.)	**renamebyaddr 10:6 NewName**
src	Source	Used alone or as a modifier following ls (list) to list sources by level. Used as a modifier following pr (print), and followed by a specific source name to list a specific source and associated virtual matrices.	**pr src SrcName**
sst	Suffix Sets	Used as a modifier following ls (list) to list panel suffix sets. Used as a modifier following pr (print), and followed by a specific suffix set name to display that suffix set.	**pr sst SfxSetName**
t	Take	Used as a modifier preceding a destination name, followed by a source name, and (optionally) a level name to take the specified source to the specified destination on the specified level. If no level is specified, the take will be of all levels associated with the source.	**t DstName SrcName LvlName**
unprotoverride	Unprotect Override	Used as a modifier preceding a specific destination name followed by a level name to unprotect the specified destination on the specified level, overriding other factors.	**unprotoverride DstName LvlName**

Diagnostic Messages

When the Series 7000 operating system detects an error, it generates both a diagnostic code and a more verbose explanation of the error. Error codes are abbreviated explanations of errors suitable for control panel display. Codes are visible to the panel which caused them to be generated and to any other panel in active control of the same destination as the panel which caused the error. Control panel error codes are defined in the *Series 7000 User Manual*. Pertinent diagnostic explanations are sent by the Series 7000 MCPU to the terminal connected at the Diagnostic Interface.

Viewing Diagnostic Messages

Diagnostic messages are displayed on the diagnostic terminal as they are sent by the system MCPU. Most diagnostic messages reflect occurrences which will not affect system performance.
Diagnostic messages are posted to one of two message queues: A High Priority queue and a Low Priority queue. The High Priority messages are printed before other system task processing; the Low Priority messages are printed after other system task processing.
Each message is given one of five severity levels:
Informational
Warning
Error
Severe
Fatal

The Severity Level may be defined so that only errors of a certain severity, or greater, are printed to the terminal while errors of lesser significance are ignored. The default system Severity Level is Error. (Exception: During system initialization, Severity Level is set to Info(rmational) and then assumes the defined level once the configuration file is read.) For example, if Severity Level is set to Informational, all error messages will be printed. If Severity Level is set to Error, only Error, Severe, Fatal, and Other messages will be printed.

Organization

Messages are generated by several different software tasks within the Series 7000 system. The format of messages generated by different tasks do not necessarily match each other. Messages documented in this section are organized according to message severity level; if a message does not specify severity level, it is grouped as other. Organization is:
Informational
Warning
Error
Severe
Fatal
Other

General Message Format

The general format of a message printed to the terminal is:
%<q><s>-<taskname>/<module or exception name>-<text>

Where: **<%>** indicates the message was printed from the Diagnostic Message Logging system
<q> is L for Low Priority or H for High Priority
<s> is I, W, E, S, or F to indicate Severity Level (not always reported) **<taskname>** is the name of the task from which the message was posted **<module>** is a prefix indicating the source code file which

posted the message **<text>**is the specific message text
For example:

```
%LE- smsApp/NETCFG- Mezzanine type doesn't match
configuration
```

The example message was from the Low Priority queue and of Error Severity Level. The posting task was smsApp; the posting module was NETCFG. The text indicates that the mezzanine board type read from coproc.cfg did not match the mezzanine type that was read from hardware. For example, an Asynchronous Mezzanine configuration was sent to a Global Serial Channel Mezzanine board.

Setting Severity Limit for Error Reporting

To view the current Severity Limit, enter:

```
SMS7000> lm severity
```

To set the Severity Limit which will be in effect after the configuration is read in, enter:

```
SMS7000> lm severity level
```

Where level can be:
info (informational)
warn(warning)
error
severe
fatal
off (disables error reporting)
default (system default is error)

Changing the Default Severity Limit

To change the default Severity Limit, enter:

```
SMS7000> lm save severity
```

The current Severity Level will be saved as the system default, used during system initialization.
To save the current Severity Level as the default message severity level used after initialization, enter:

```
SMS7000> lm save default
```

Example Messages

The following message examples can be printed from the Diagnostic Message Logging system. The messages appear in the format as shown in *General Message Format* (page 5-15). All Informational messages start with %LI-<task name>/, Warning messages start with %LW-<task name>/, etc.

Informational Messages

NETMBF- Can't free message buffer,...

Printed if the get buffer function (used by most system processes to reserve a message buffer) detects an error when attempting to reserve a buffer for a coprocessor message.
Probably the result of a busy network interface (i.e., all buffers temporarily in use). Take no action unless the error continuously occurs, indicating a possibly faulty interface. If the error continues, check

network connections; replace the Mezzanine if indicated

NETALR- Network alarm received,...

A significant event occurred for a network, e.g., a network was deleted, a switchover occurred, etc.
Check the hardware associated with the network, try resetting devices or reseating boards causing the problem. If problem persists attempt a switchover to a redundant board if available. Final action, if necessary, is an MCPU system reset.

NETALR- Alarm server socket queue receive error

The text portion of this message is a program error.
Call Customer Service.

NETEOK: Success

Successful result.

Warning Messages

REDEMCPUMODECHNG: MCPU opMode has changed

The backup MCPU has changed to another state, i.e., backup, primary, synchronized, etc.
Take no action unless message repeats continually. Replace backup MCPU if indicated.

NETEMEZFOUND: System found mezzanine

MCPU has restored communication with a mezzanine.
No action required.

NETEIOBLOCKED: I/O blocked

The system could not send a message to get network events, if any. This is more a warning that the system may be busy.
Take no action unless the problem continues; if it does, try to determine any unusual activity in the system that might cause many messages to be sent. Try to reduce this system activity. The most likely cause is a disconnected communication cable or a device is not working which is connected to an AMEZI board.

NETETALLYNAME: Tally network configured wrong

The Tally system does not match the configuration.
Check the configuration to make sure it matches the hardware associated with the network. If both configuration and hardware appear OK, try resetting devices or reseating the boards associated with the problem. The most likely cause is a tally mezzanine is configured as a standard GSC mezzanine.

Error Messages

CSTESENDCFGTMO: system configuration send timed out

The system tried to send configuration data to backup MCPU and could not do it for some reason.
Check the backup MCPU and the hardware associated with it. If the hardware appears OK, try resetting devices or reseating the boards associated with the problem.

CSTECANTSENDCFG: can't send system configuration

The system tried to send configuration data to backup MCPU and could not do it for some reason.
Check the backup MCPU and the hardware associated with it. If the hardware appears OK, try resetting devices or reseating the boards associated with the problem.

CSTECANTRECVCFG: can't receive system configuration

Backup MCPU was unsuccessful in receiving the configuration.

Check the hardware associated with the backup MCPU. If the hardware appears OK, try resetting devices or reseating the boards associated with the problem.

CBDEMEZTYPMISMTCH: Mezzanine type mismatch with configuration

System is coproc. configuration doe not match hardware.
Check the system configuration. Check the configuration make sure it matches the hardware associated with the mezzanine. If both configuration and hardware appear OK, try resetting devices or reseating the boards associated with the problem.

CBDENOHEARTBEAT: Mezzanine heartbeat failed

Heartbeat counter in the mezzanine has failed to increment.
Attempt switchover to redundant hardware if present, replace mezzanine if indicated. If switchover fails reset CIF.

REDEUNKNOWNRMCPUST: Unknown remote MCPU state

System is confused about state of redundant MCPU.
Restart backup MCPU.

NETEDESTRCTFAIL: Backup MCPU config. destruct failed

When attempting to create a new configuration during integration of backup MCPU removal of the old backup MCPU configuration failed.
Restart the backup MCPU and try again. Also try re-sending new configuration from PC.

NETEMEZLOST: System lost mezzanine

MCPU has lost communication with a mezzanine.
The system will switchover to redundant hardware if present, replace mezzanine if indicated. If switchover fails reset MCPU.

NETEDESTRCTTMO: Backup MCPU config. destruct timed out

When attempting to create a new configuration during integration of backup MCPU removal of the old backup MCPU configuration failed.
Restart the backup MCPU and try again. Also try re-sending new configuration from PC.

NETECANTINTEGRT: Unable to integrate MCPUs

The system failed to synchronize the state of the primary and backup MCPUs.
The backup MCPU board will be integrated with the primary (i.e., config transfer, etc.) if the following criteria are met:
Force integration flag is True. (default is False)
Primary MCPU integration flag is TRUE (Default is True) backup MCPU integration flag is TRUE (Default is True)
Primary boot ROM version/date is the same as the secondary boot ROM version/date
Primary application version/date is the same as the secondary application version/date
Primary console spec (console.ini) is the same as the secondary console spec
Primary slip spec (slip.ini, only used with SMS-V64x64 systems) is the same as the secondary slip spec
Primary MCPU mezzanine IDs is the same as the secondary MCPU mezzanine IDs

If the above criteria is not met the exception NETECANTINTEGRT will be created when the primary MCPU attempts to integrate the backup MCPU.
The following system diagnostic commands are provided to override this policy:
`"integration" <on|off>`

This command turns on or off (True/False) the MCPU integration flag. If either MCPU integration flag is False the MCPUs will not be integrated. This setting is temporary and defaults to True after a

reset.
`" fintegration" <on|off>`

This command turns on or off (True/False) the force integration flag on the primary MCPU. Additionally, it attempts to start an integration process. If this flag is True integration will take place regardless of any other above criteria. This setting is temporary and defaults to False after a reset. The configurations stored in Flash or RAM are not a criteria for integration.

NETEUNKNWNORGNET: Bad originating network

The system software found a bad value for a network address. The system is in an unusual state.
Check too see if the system was unusually busy for some reason, are devices getting deleted and added back, are there lots's of takes(100's)? You may want to try to switch to any redundant hardware to see if the problem occurs again. If the problems continues reset the MCPU. Check software and hardware revisions. Reload indicated software if available. Check to see if system configuration matches hardware.

NETEUNKNWNNET: Invalid network

The system software found a bad value for a network address. The system is in an unusual state.
Check too see if the system was unusually busy for some reason, are devices getting deleted and added back, are there lots's of takes(100's)? You may want to try to switch to any redundant hardware to see if the problem occurs again. If the problems continues reset the MCPU. Check software and hardware revisions. Reload indicated software if available. Check to see if system configuration matches hardware.

NETEUNKNWNSOC: Bad socket number

A device sent a message that the MCPU could not interpret. Could be a bad device, cable, or software release mismatch.
Check the device that created the problem. Check cables and hardware associated with the device that created the problem. Check software and hardware revisions. Reload indicated software if available. Check system configuration matches hardware. If both configuration and hardware appear OK, try resetting devices or reseating the boards associated with the problem.

NETERCVBADSOCMSG: Received bad socket message

A device sent a message that the MCPU could not interpret. Could be a bad device, cable, or software release mismatch.
Check the device that created the problem. Check cables and hardware associated with the device that created the problem. Check software and hardware revisions. Reload indicated software if available. Check to see if system configuration matches hardware. If both configuration and hardware appear OK, try resetting devices or reseating the boards associated with the problem.

NETEDEVADDRINUSE: Device address conflict

The system software found a value for a network that was already in use. The system is in an unusual state.
Check too see if the system was unusually busy for some reason, are devices getting deleted and added back, are there lots's of takes(100's)? You may want to try to switch to any redundant hardware to see if the problem occurs again. If the problems continues reset the MCPU. Check software and hardware revisions. Reload indicated software if available. Check to see if system configuration matches hardware. Reload indicated software if available.

NETEINVLDSTATE: Incorrect coprocessor state

A coprocessor mezzanine did not change to the state is was told to go.
Check to see if the system was unusually busy for some reason, are devices getting deleted and added back? Are there lots of takes(100s)? You may want to try to switch to a redundant CIF to see if the

problem occurs again. If the problems continues reset the CIF. Check software and hardware revisions. Check system configuration matches hardware.

NETESTATECHNGTMO: Coprocessor state change timeout

A coprocessor tried to change it's state, e.g., backup, primary, idle, etc.
Check to see if the system was unusually busy for some reason, are devices getting deleted and added back? Are there lots of takes(100s)? You may want to try to switch to a redundant CIF to see if the problem occurs again. If the problems continues reset the CIF. Check software and hardware revisions. Check system configuration matches hardware.

NETECANTSHUTNET: Unable to shutdown network

The system is in an unusual state.
Check to see if the system was unusually busy for some reason, are devices getting deleted and added back? Are there lots of takes(100s)? You may want to try to switch to a redundant CIF to see if the problem occurs again. If the problems continues reset the CIF. Check software and hardware revisions. Check to see if system configuration matches hardware.

NETECANTRECVMSG: Unable to receive message

Printed if the receive buffer function detects an error when attempting to reserve a buffer for a coprocessor message. Probably the result of a busy interface, usually a temporary condition.
Take no action unless the error continuously occurs. If it continues, check the network connections; replace the mezzanine if indicated. If this occurs on the IPCB (inter processor comm bus) network check the backup MCPU.

NETECANTSENDMSG: Unable to send message

Printed if the get buffer function detects an error when attempting to reserve a buffer for a coprocessor message. Probably the result of a busy interface, usually a temporary condition.
Take no action unless the error continuously occurs. If it continues check the network connections; replace the mezzanine if indicated. If this occurs on the IPCB (inter processor comm bus) network check the backup MCPU.

NETECANTGETBUF: Unable to get message buffer

Printed if the get buffer function detects and error when attempting to reserve a buffer for a coprocessor message. Probably the result of a busy interface, usually a temporary condition.
Take no action unless the error continuously occurs. If it continues check the network connections; replace the mezzanine if indicated.

NETECANTQUEMSG: Unable to queue message

Printed if the get buffer function detects an error when attempting to reserve a buffer for a coprocessor message. Probably the result of a busy interface, usually a temporary condition.
Take no action unless the error continuously occurs. If it continues check the network connections; replace the mezzanine if indicated.

Severe Messages

NETMBF- Can't get message buffer

Printed if the get buffer function detects an error when attempting to reserve a buffer for a coprocessor message.
Probably the result of a busy network interface (i.e., all buffers temporarily in use). Take no action unless the error continuously occurs, indicating a possibly faulty interface. If the error continues, check network connections; replace the Mezzanine if indicated.

NETWRK- <var text>, net: <n>, for Control Message: <var text>

Printed from a common control message function which sends control messages to a coprocessor during the shutdown and start-up sequences if a message buffer has not been reserved or if the expected change state response was not received from the target coprocessor. The <var text> depends upon failure and message type.
This could be a busy coprocessor. Take no action unless the message repeatedly occurs, in which case it is probably the result of a failed coprocessor. Replace the failed Mezzanine.

NETWCH- Unknown message type from network

May have release mismatch. Check release revision numbers for software using **`ver all`** command. Also check hardware revisions, if any.
If message occurs repeatedly, attempt to reset the device causing the error message.

NETWCH- Event status from invalid network

An unusual state for the system has occurred, hardware or software problem.
If message occurs repeatedly, attempt to reset the device causing the error message.

NETWCH- Event status from network: #, unknown network type

An unusual state for the system has occurred, hardware or software problem.
If message occurs repeatedly, attempt to reset the device causing the error message.

CBDEUNKNOWNNETERR: Unknown network error

System software received a network initialization error it could not interpret.
Check the hardware associated with the network. If the hardware appears OK, try resetting devices or reseating the boards associated with the problem. Check release versions of hardware and software.

CBDEUNKNOWNNETTYPE: Unknown network type for mezzanine

The mezzanine and configuration do not match each other.
The hardware is likely at fault. The mezzanine hardware type code is not recognized. Also check the configuration make sure it matches the hardware associated with the network. If both configuration and hardware appear OK, try resetting devices or reseating the boards associated with the problem.

CBDETOOMANYNETWORKS: Too many networks created

Message occurs if too many networks are detected.
Check the system configuration limits. Re-send the configuration. Check cabling, isolate network if problem continues, switch to redundant hardware if present.

SMSEBADPROGPATH: Error in program path

The specified path to a file was not correct or the file does not exist in the path.
Call Customer Service.

Fatal Messages

NETWCH- Heartbeat timeout on network <n>

Printed if a coprocessor (mezzanine hardware) fails to increment its heartbeat time/counter in a timely manner. The coprocessor is expected to increment the timer a minimum of once per second.
The coprocessor/mezzanine (network) will shut down if this error occurs. If redundant CIF and mezzanine backups are available, the system will switch to them automatically. Replace the faulty Mezzanine board.

/NETWRK- Network state: <state>, net: <n> not correct for Control Message <state>

Printed from a common control message function which sends control messages to a coprocessor during the shutdown and start-up sequences. This same function waits for a response from the coprocessor and, if the response state from the coprocessor does not match the expected state, this message is printed.
Could be a busy coprocessor. Take no action unless the message repeatedly occurs. In which case it is probably the result of a failed coprocessor. Replace the failed Mezzanine.

REDEMCPUKILLSELF: This MCPU is killing itself

This message appears when the MCPU is rebooted or switchmcpu is done.
No action is needed.

REDE2PRIMRYMCPU: Found 2 primary MCPUs

The primary MCPU found the state of the backup to be primary as well. Take no action unless condition persists. Remove or restart backup.

NETECANTINSDRV: Unable to install driver

Driver could not be found by network. Call Customer Service.

SMSECANTFIND: Fatal error while searching for item.

Hardware or software is not running properly.
Attempt a switchover to redundant module if available. Otherwise reset MCPU. Call Customer Service.

SMSECANTINIMOD: Fatal error while initializing module

Hardware or software is not running properly.
Attempt a switchover to redundant module if available. Otherwise, reset MCPU. Call Customer Service.

SMSECANTSPNTSK: Fatal error while spawning a task

System software is not running properly.
Attempt a switchover if redundant MCPU is available. Otherwise reset MCPU. Call Customer Service.

SMSECANTCREQUE: Fatal error while creating message queue

System software is not running properly.
Attempt a switchover if redundant MCPU is available. Otherwise reset MCPU. Call Customer Service.

SMSECANTCREQUE: Fatal error while creating message queue

System software is not running properly.
Attempt a switchover if redundant MCPU is available. Otherwise reset MCPU. Call Customer Service.

SMSECANTCRESEM: Fatal error while creating semaphore

System software is not running properly.
Attempt a switchover if redundant MCPU is available. Otherwise reset MCPU. Call Customer Service.

Other Messages

NETCFG- Syntax error, after slot number
Something other than mez, switch, or end-of-line was detected after the slot or pg command. Printed from the coproc.cfg file while parsing the slot or pg command. This file contains the Communications Interface (CIF) and Mezzanine board parameters.
Re-enter the command or query which produced the error.

InitANCConfig: ERROR creating semaphores
Configuration, memory, or other system problem.
Reset Node Controller. Reset MCPU.

InitNCConfigServer: ERROR: Couldn't create message queue
Configuration, memory, or other system problem.
Reset Node Controller. Reset MCPU.

AttachANC(s): ERROR: CNC <name> already in use
Configuration error. Node Controller name already in use.
List Node Controller names, Active and Configured. Use a different name for a new Node Controller.

AttachCNC: ANC <name> already in use
Configuration error. Node Controller name already in use.
List Node Controller names, Active and Configured. Use a different name for a new Node Controller.

AddANC: ERROR: invalid device: network:device
Configuration error.
List Node Controller names, Active and Configured. Use a different name for a new Node Controller.
Reset Node Controllers.

<name> bad ANC name
Configuration error.
List Node Controller names, Active and Configured. Use a different name for a new Node Controller.
Reset Node Controllers.

<name> no redundant ANC on line
Configuration error.
List Node Controller names, Active and Configured. Use a different name for a new Node Controller.
Reset Node Controllers.

<name> no ANC matched
Configuration error.
List Node Controller names, Active and Configured. Use a different name for a new Node Controller.
Reset Node Controllers.

<name> no CNC by this name
Configuration error.
List Node Controller names, Active and Configured. Use a different name for a new Node Controller.
Reset Node Controllers.

<name> switch did not occur for unknown reason

Configuration error.
List Node Controller names, Active and Configured. Use a different name for a new Node Controller.
Reset Node Controllers.

SyncANCmsgWindow, WARNING: window is zero

Extremely busy communications bus. Node Controllers cycling on and offline.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset MCPU.

ResetANCmsgWindowFrAddr, WARNING: can't reset window

Extremely busy communications bus. Node Controllers going on- and offline.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset MCPU.

SyncANCmsgWindowFrAddr, WARNING: can't sync window

Extremely busy communications bus. Node Controllers going on- and offline.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset MCPU.

CreditANCmsgWindow, WARNING: can't credit window

Extremely busy communications bus. Node Controllers going on- and offline.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset MCPU.

ANCHealthUpdate, WARNING: no device record

Configuration, memory, or other system problem.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset and/or rename Node Controllers. If problem continues, reset MCPU.

ANCHealthUpdate, WARNING: no node control record

Configuration, memory, or other system problem.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset and/or rename Node Controllers. If problem continues, reset MCPU.

ANCHealthUpdate, WARNING: couldn't switch to backup

Configuration, memory, or other system problem.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset and/or rename Node Controllers. If problem continues, reset MCPU.

ANCHealthUpdate, WARNING: node control backup state mismatch

Configuration, memory, or other system problem.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset and/or rename Node Controllers. If problem continues, reset MCPU.

ANCHealthCheck, WARNING: no health response from NC <name>

Configuration, memory, or other system problem. Node controller off line.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset and/or rename Node Controllers. If problem continues, reset MCPU.

ANCHealthCheck, WARNING: couldn't switch to backup

Configuration, memory, or other system problem. Node controller off line.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset and/or rename Node Controllers. If problem continues, reset MCPU.

Error, cncinfo prec null

Configuration, memory, or other system problem. Node controller off line.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset and/or rename Node Controllers. If problem continues, reset MCPU.

mtPrintPMs: ERROR: bogus pmIndex: <physical matrix index #>

Configuration, memory, or other system problem. Node controller off line.
If message is only occasional and system does not appear to be affected negatively, ignore it. If message is continuously generated, or system is affected, reset and/or rename Node Controllers. If problem continues, reset MCPU.

Event Logging

If the function is enabled, the Diagnostic Interface terminal will maintain an event log. The event log is a First-In, First-Out buffer that can hold up to 255 event messages. The log is user-configurable to record events ranging from the addition of a device to Takes, Protects, alarms, and more.

Enabling or Disabling Event Logging

To enable the event log (can be overridden by log set commands below):

```
SMS7000> log on
```

To set event logging to be automatically enabled after a reset or restart:

```
SMS7000> log set on
```

To set event logging so that it must be manually enabled after a reset or restart:

```
SMS7000> log set off
```

To shut off the event logging task (can be overridden by log set commands):

```
SMS7000> log off
```