INIT Commands

This chapter provides initialize (INIT) commands for the Cisco NCS 2002 and Cisco NCS 2006.

17.1 INIT-REG-<MOD2>

The Initialize Register for 10GFC, 10GIGE, 40GIGE, 100GIGE, 1GFC, 1GFICON, 2GFC, 4GFC, 2GFICON, 5GIB, 8GFC, CHGRP, CLNT, D1VIDEO, DS3I, DV6000, DVBASI, E1, E3, E4, ESCON, ETH, ETRCLO, FSTE, G1000, GFPOS, GIGE, HDLC, HDTV, ISC1, ILK, ISCCOMPAT, ISC3PEER2R, ISC3PEER1G, ISC3PEER2G, OTU3, OTU4, STM4, STM64, STM1, STM16, OCH, OMS, OTS, POS, STM1E, T3, VC3, VC44C, VC38C, VC464C, VC48C, VC4, VC416C, VC42C, VC43C, VC12, 3GVIDEO, SDSDI , HDSDI, AUTO, OTU1, OTU2, ISC3STP1G, or ISC3STP2G (INIT-REG-<MOD2>) command initializes the performance monitoring (PM) registers.

Usage Guidelines

The command supports the modifier 3GVIDEO, SDSDI , HDSDI, AUTO, OTU1, ISC3STP1G, and ISC3STP2G.

See Table 29-1 on page 29-1 for supported modifiers by platform.

- The time period is always the current time period, and the previous time period counts are not cleared; therefore, both <MONDAT> and <MONTM> are not supported in this command.
- All cards support only the receive (RCV) direction. BTH is not supported for this command.
- INIT-REG-<MOD2> can also be used to initialize the remote monitoring (RMON) managed raw data.

Category

Performance

Security

Provisioning

Input Format

INIT-REG-<MOD2>:[<TID>]:<AID>:<CTAG>::<MONTYPE>,,[<LOCN>],[<DIRN>],[<TMPER>][,,];

Input Example INIT-REG-OTU1:CISCO:VFAC-1-2-1:1234::CVL,,NEND,BTH,15-MIN;

Table 17-1 Parameter Support

Parameter	Description
<AID>	Access identifier from the "27.1 ALL" section on page 27-1. All of the STS, VT1, Facility, and DS1 AIDs are supported. The AR-MXP, AR-XP, and AR-XPE cards use the VFAC AID.
<MONTYPE>	Monitored type. The parameter type is ALL_MONTYPE, which is the monitoring type list.
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBEP	NCS Background Block Errors Path
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBER	NCS Background Block Error Ratio
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as one tenth of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as one tenth of a percentage.
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BIEC	FEC—Bit Errors Corrected
• BIT-EC	The number of bit errors corrected by the FEC algorithm
• CGV	8B10B—Code Group Violations
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as tenths of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as tenths of a percentage
• ESS	Errored Seconds—Section
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESV	Errored Seconds—VC Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions

Table 17-1 Parameter Support

Parameter	Description
• etherStatsCRCAlignErrors	The total number of packets received that have a length (excluding framing bits, but including frame check sequence [FCS] octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds–A
• HP-ESB	High-Order Path Errored Seconds–B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path Pointer Justification Count Seconds
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of Severely Errored Period Intensity events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets

Table 17-1 Parameter Support

Parameter	Description
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpacket Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted
• ifOutPayloadCrcErrors	Received payload cyclic redundancy check (CRC) errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B–Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in micro A
• LBCL-MAX	Maximum Laser Bias current in micro A
• LBCL-MIN	Minimum Laser Bias current in micro A
• LBCN	Normalized Laser Bias Current for STM1-8
• LBCN-HWT	Laser Bias current
• LBCN-LWT	Laser Bias current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds–A
• LP-ESB	Low-Order Path Errored Seconds–B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low Order Positive Pointer Justification Count, Generated
• LP-SEP	A sequence of between 3 to 9 consecutive severely errored seconds (SES)

Table 17-1 Parameter Support

Parameter	Description
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored Seconds
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Multiplex Section-Protection switch count
• MS-PSD	Multiplex Section-Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	Negative Pointer Justification Count, Path Detected
• NPJC-PGEN	Negative Pointer Justification Count, Path Generated
• OPR-AVG	Average Receive Power in tenths of a micro W
• OPR-MAX	Maximum Receive Power in tenths of a micro W
• OPR-MIN	Minimum Receive Power in tenths of a micro W
• OPRN	Normalized Optical Receive Power for STM1-8
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in tenths of a micro W
• OPT-MAX	Maximum Transmit Power in tenths of a micro W
• OPT-MIN	Minimum Transmit Power in tenths of a micro W
• OPTN	Normalized value for Optical Power Transmitted for STM1-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in tenths of a dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in tenths of a dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in tenths of a dBm
• PPJC-PDET	Positive Pointer Justification Count, Path Detected
• PPJC-PGEN	Positive Pointer Justification Count, Path Generated
• PRE-FECBER	Enum to hold PRE-FECBER value
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path

Table 17-1 Parameter Support

Parameter	Description
• SEFS	Severely Errored Framing Seconds
• SESCPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR	Severely Errored Second—Ratio
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as tenths of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as tenths of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VC Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line
• UASP	Unavailable Second—Path
• UAS-PM	OTN—Unavailable Second—Path Monitor Point
• UAS-SM	OTN—Unavailable Second—Section Monitor Point
• UASV	Unavailable Second—VC Path
• UNC-WORDS	FEC—Uncorrectable Words
• VPC	Valid Packet Count
<LOCN>	(Optional) Location associated with a particular command in reference to the entity identified by the AID. The parameter type is LOCATION, which is the location where the action is to take place.
• FEND	Action occurs on the Far End of the facility.
• NEND	Action occurs on the Near End of the facility.
<DIRN>	(Optional) Direction relative to the entity identified by the AID. Defaults to ALL, which means that the command initializes all of the registers irrespective of the PM direction. The parameter type is DIRECTION (transmit and receive directions).
• RCV	Receive direction only
<TMPER>	(Optional) Accumulation time period for performance counters. A null value defaults to 15-MIN. Defaults to 15-MIN. The parameter type is TMPER, which is the accumulation time period for the performance management center.
• 1-DAY	Performance parameter accumulation interval length; every 24-hours. For NCS PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.
• 1-HR	Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.
• 1-MIN	Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.

Table 17-1 Parameter Support

Parameter	Description
• 15-MIN	Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.
• RAW-DATA	Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.

17.2 INIT-SYS

The Initialize System (INIT-SYS) command initializes the specified card and its associated subsystem(s).

Usage Guidelines

- This command cannot be executed if the network is in a Multiplex-Section Shared Protection Ring (MS-SPRing)
- The SLOT-ALL AID and the list AID are not allowed in this command.
- Only one level of reset is supported in this command.
- It is important that the standby TCC2/TCC2P/TCC3, TNC, TSC, and CTX cards should be up and running fully standby before this command is sent on the active TCC2/TCC2P/TCC3, TNC, TSC, and CTX cards for a period of time. During this time, the system is vulnerable to traffic outages caused by timing disruptions or other causes.
- Before a card is hard reset, it must be in one of the following state:ADMIN STATE - LOCKED,MAINTENANCE & SERVICE STATE - LOCKED-ENABLED, MAINTENANCE.

Category System

Security Maintenance

Input Format INIT-SYS:[<TID>]:<AID>:<CTAG>::<PH>[,<CMDMDE=CMDMDE>];

Input Example INIT-SYS:HOTWATER:SLOT-1:201::1,CMDMDE=FRCD;

Table 17-2 Parameter Support

Parameter	Description
<AID>	Access identifier from the "27.13 EQPT" section on page 27-21.
<PH>	The phase. 1=soft reset; 2=hard reset. PH is an integer.

Table 17-2 Parameter Support

Parameter	Description
<CMDMDE>	(Optional) Command mode. Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in Unlocked-Enabled or Locked-Disabled, AutomaticInService service states.
• FRCD	Force the system to override a state in which the command would normally be denied.
• NORM	Execute the command normally. Do not override any conditions that could make the command fail.