



CHAPTER 15

INIT Commands

This chapter provides initialize (INIT) commands for the Cisco ONS 15454, Cisco ONS 15454 M2, and Cisco ONS 15454 M6.



Note

All commands supported on the Cisco ONS 15454 platform are also supported on Cisco ONS 15454 M2 and Cisco ONS 15454 M6 platforms.

15.1 INIT-REG-<MOD2>

(Cisco ONS 15454, ONS 15454 M2, and ONS 15454 M6) Initialize Register for 10GFC, 10GIGE, 40GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, 5GIB, 8GFC, CHGRP, CLNT, D1VIDEO, DS1, DV6000, DVBASI, E1, E3, E4, EC1, ESCON, ETRCLO, ETH, FSTE, G1000, GFPOS, GIGE, HDLC, HDTV, ISC1, ILK, ISCCOMPAT, ISC3PEER2R, ISC3PEER1G, ISC3PEER2G, OC12, OC192, OC3, OC48, OC768, OCH, OMS, OTS, OTU3, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS96C STS6C, STS9C, T1, T3, VC12, VC3, VT1, VT2, 3GVIDEO, SDSDI, HSDSI, AUTO, OTU1, ISC3STP1G, or ISC3STP2G (INIT-REG-<MOD2>) command initializes the performance monitoring (PM) registers.

Usage Guidelines

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

See [Table 1-1 on page 1-1](#) for supported modifiers by platform.



Note

- The time period is always the current time period, and the previous time period counts are not cleared; therefore, neither MONDAT nor MONTM are supported in this command.
 - Unless otherwise stated, DS1 cards are the only cards that support the RCV and TRMT directions.
 - INIT-REG-<MOD2> can also be used to initialize the remote monitoring (RMON)-managed raw data.
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Category

Performance

Security

Provisioning

Input Format

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

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

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| <AID> | Access identifier from the “26.1 ALL” section on page 26-1. All of the STS, VT1, Facility, and DS1 AIDs are supported. The AR-MXP and AR-XP cards use the VFAC AID. |
| <MONTYPE> | Monitored type. The parameter type is ALL_MONTYPE (monitoring type list). |
| • AISSP | Alarm Indication Signal Seconds—Path |
| • ALL | All possible values |
| • BBE-PM | OTN—Background Block Errors—Path Monitor Point |
| • BBE-SM | OTN—Background Block Errors—Section Monitor Point |
| • 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. |
| • BIEC | FEC—Bit Errors Corrected |
| • BIT-EC | The number of bit errors corrected by the FEC algorithm |
| • CGV | 8B10B—Code Group Violations |
| • CSSP | Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count) |
| • 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 |
| • ESAP | Errored Second Type A-Path (DS3XM-12 DS1 PM count) |
| • ESBP | Errored Second Type B-Path (DS3XM-12 DS1 PM count) |
| • ESCPP | Errored Seconds—CP—Bit Path |
| • ESL | Errored Seconds—Line |
| • ESNPFE | Errored Second—Network Path (DS3XM-12 DS1 PM count) |
| • ESP | Errored Seconds—Path |
| • ES-PM | OTN—Errored Seconds—Path Monitor Point |
| • ES-SM | OTN—Errored Seconds—Section Monitor Point |
| • ESR | Errored Second—Ratio |
| • ESR-PM | Errored Seconds Ratio—Path monitor Point expressed as one tenth of a percentage |

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| • ESR-SM | Errored Seconds Ratio—Section monitor Point expressed as one tenth of a percentage |
| • ESS | Errored Seconds—Section |
| • ESV | Errored Seconds—VT Path |
| • etherStatsBroadcastPkts | The total number of good packets received that were directed to a multicast address |
| • etherStatsCollisions | Number of transmit packets that are collisions |
| • etherStatsCRCAlignErrors | The total number of packets received that have a length (excluding framing bits, but including 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, Negative Pointer Justification Count |
| • HP-OI | Outage Intensity |
| • HP-PJCDIFF | High Order Path Pointer Justification Count Difference |
| • HP-PJCS-PDET | High Order Path Pointer Justification Count |
| • HP-PJCS-PGEN | High Order Path Pointer Justification Count Seconds |
| • 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 |

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| • 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 |
| • ifInErrorBytePkts | 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 | 8B10—Idle Ordered Sets |
| • IPC | Invalid Packet Count |
| • LBCL-AVG | Average Laser Bias current in microA |
| • LBCL-MAX | Maximum Laser Bias current in microA |
| • LBCL-MIN | Minimum Laser Bias current in microA |
| • LBCN | Normalized Laser Bias Current for OC3-8 |
| • 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 | Low-Order Path Severely Errored Period |
| • LP-SEPI | Low-Order Path Severely Errored Period Intensity |

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| • LP-SES | Low-Order Path Severely Errored |
| • LP-UAS | Low-Order Path Unavailable Seconds |
| • MS-PSC | Protection switch count |
| • MS-PSD | Protection switch duration |
| • NIOS | 8B10B—Non Idle Ordered Sets |
| • NPJC-PDET | PPJC-PDET:Negative Pointer Justification |
| • NPJC-PGEN | PPJC-PGEN:Negative Pointer Justification |
| • OPR-AVG | Average Receive Power in tenths of a microW |
| • OPR-MAX | Maximum Receive Power in tenths of a microW |
| • OPR-MIN | Minimum Receive Power in tenths of a microW |
| • OPRN | Normalized Optical Receive Power for OC3-8 |
| • OPRN-MAX | Maximum value for OPRN |
| • OPRN-MIN | Minimum value for OPRN |
| • OPT-AVG | Average Transmit Power in tenths of a microW |
| • OPT-MAX | Maximum Transmit Power in tenths of a microW |
| • OPT-MIN | Minimum Transmit Power in tenths of a microW |
| • OPTN | Normalized value for Optical Power Transmitted for the OC3-8 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 | PPJC-PDET:Positive Pointer Justification |
| • PPJC-PGEN | PPJC-PGEN:Positive Pointer Justification |
| • 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/Alarm Indication Signal (AIS) Seconds—CP-Bit Path |
| • SASP | Severely Errored Framing/AIS Seconds Path |
| • SEFS | Severely Errored Framing Seconds |
| • SEFSP | Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count) |
| • SESCPP | Severely Errored Second—CP-Bit Path |
| • SESL | Severely Errored Second—Line |
| • SESNPFE | Severely Errored Second—Network Path (DS3XM-12 DS1 PM count) |

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| • SESP | Severely Errored Second—Path |
| • SES-PM | OTN—Severely Errored Second—Path |
| • SESR-PM | OTN—Severely Errored Second Ratio—Path Monitor Point expressed as one tenth of a percentage |
| • SESR-SM | OTN—Severely Errored Second Ratio—Section Monitor Point expressed as one tenth of a percentage |
| • SESS | Severely Errored Second—Section |
| • SES-SM | OTN—Severely Errored Second—Section Monitor Point |
| • SESV | Severely Errored Second—VT Path |
| • UASCPP | Unavailable Second—CP-Bit Path |
| • UASL | Unavailable Second—Line |
| • UASNPFE | Unavailable Second—Network Path (DS3XM-12 DS1 PM count) |
| • UASP | Unavailable Second—Path |
| • UAS-PM | OTN—Unavailable Second—Path Monitor Point |
| • UAS-SM | OTN—Unavailable Second—Section Monitor Point |
| • UASV | Unavailable Second—VT Path |
| • UNC-WORDS | FEC—Uncorrectable Words |
| • VPC | Valid Packet Count |
| <LOCN> | 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> | 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). |
| • BTH | Both transmit and receive directions |
| • RCV | Receive direction only |
| • TRMT | Transmit direction only |
| <TMPER> | 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 SONET 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. |

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| • 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. |

15.2 INIT-SYS

(Cisco ONS 15454, ONS 15454 M2, and ONS 15454 M6) The Initialize System (INIT-SYS) command initializes the specified card and its associated subsystems.

Usage Guidelines

- This command cannot be executed if the network is in a Bidirectional Line Switched Ring (BLSR).
- The SLOT-ALL AID and the list AID are not allowed in this command.
- Only one level of reset is supported in this command for the ONS 15454.
- It is important that the standby TCC2/TCC2P/TCC3, TNC, and TSC should be up and running fully standby for a period of time before this command is sent on the active TCC2/TCC2PTCC3, TNC, and TSC. During this time, the system is vulnerable to traffic outages caused by timing disruptions or other causes.
- If a card is hard reset, it has to be in one of the following states: OOS-MA, MT; OOS-MA, DSBLD; OOS-AUMA, MT; OOS-AUMA, DSBLD.

Category

System

Security

Maintenance

Input Format

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

Input Examples

INIT-SYS:HOTWATER:SLOT-8:201::1,CMDMDE=FRCD;

Input Parameters

| | |
|-------|---|
| <AID> | Access identifier from the “26.15 EQPT” section on page 26-38. |
| <PH> | The phase. 1=soft reset; 2=hard reset. PH is an integer. The PH parameter is supported on the CE-100T-8 and CE-MR-10 cards on the ONS 15454. |

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| <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. |
