



CHAPTER 22

SCHEM Commands

This chapter provides schedule (SCHED) commands for the Cisco ONS 15454, Cisco ONS 15310-CL, Cisco ONS 15310-MA, and Cisco ONS 15600.

22.1 SCHED-PMREPT-<MOD2>

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Schedule Performance Monitoring Report for 10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, ETH, FSTE, G1000, GFPOS, GIGE, HDTV, ISC1, ISCCOMPAT, ISC3PEER2R, ISC3PEER1G, ISC3PEER2G, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, or VT2 (SCHED-PMREPT-<MOD2>) command schedules/reschedules the network element (NE) to report the performance monitoring (PM) data for a line facility or for a synchronous transport signal (STS) path periodically, using the automatic REPT PM message. This command can also remove the previously created schedule.

Usage Guidelines

See [Table 28-1 on page 28-1](#) for supported modifiers by platform.

The automatic PM reporting scheduled by this command is inhibited by default. ALW-PMREPT-ALL can be used to allow the NE to send the PM report. INH-PMREPT-ALL can be used to stop the NE from sending the PM report. The schedules created for the NE can be retrieved by RTRV-PMSCHED command.

The deletion of the schedule for the automatic PM reporting can be done by issuing SCHED-PMREPT-<MOD2> with the NUMREPT parameter equal to zero.



Note

- The current maximum number of schedules allowed to be created for a NE is 1000. If this number of schedules has been created for the NE, an error message “Reach Limits Of MAX Schedules Allowed. Can Not Add More” will be returned if another schedule creation is attempted on the NE. Frequent use of automatic PM reporting will significantly degrade the performance of the NE.
- A schedule cannot be created if the card associated with the schedule is not provisioned, or if the cross-connection associated with the schedule has not been created. However, a schedule is allowed to be deleted even if a card is not provisioned, or if the cross-connection has not been created.
- The number of outstanding PM reports counter (NUMREPT) will not be decremented, and the scheduled automatic PM reporting will not start if the card associated with the schedule is not physically plugged into the slot.

- An expired schedule would not be automatically removed. The SCHED-PMREPT command has to be issued with the NUMREPT parameter equal to zero in order to delete the expired schedule.
- Identical schedules for an NE are not allowed. Two schedules are considered identical if they have the same AID, MOD2 type, performance monitor type, performance monitor level, location, direction, and time period.

An error message “Duplicate Schedule” is returned if you try to create a schedule that is a duplicate of a existing schedule. However, if the existing schedule expires (with the parameter NUMINVL equal to zero when retrieved by the RTRV-PMSCHED command, that is, no more PM reporting is sent) the new schedule with the identical parameters will replace the existing schedule.

- When a electrical or optical card is unprovisioned by the DLT-EQPT command, or a cross-connection is deleted by the DLT-CRS command, the schedules associated with that card or that cross-connection will be removed silently by the NE. This removal prevents another type of card or cross-connection with the same AID to be provisioned on the NE, and prevents the NE from trying to send automatic PM reports based on the existing schedules.

The card or cross-connect can be unprovisioned or deleted through CTC. The schedules associated with that card or that cross-connection will also be removed silently by the NE.

- VT1 level schedules cannot be created on Optical ports. The VT-level PMs are monitored only on the path terminating ports.

Category	Performance
Security	Retrieve
Input Format	SCHED-PMREPT-<MOD2>:[<TID>]:<SRC>:<CTAG>:[<REPTINVL>],[<REPTSTATM>],[<NUMREPT>],[<MONLEV>],[<LOCN>],[<TMPER>],[<TMOFST>];
Input Example	SCHED-PMREPT-OC3:NE-NAME:FAC-3-1:123::60-MIN,15-30,100,,1-UP,NEND,,15-MIN,0-0-15;

Input Parameters	
<AID>	Access identifier from the “26.1 ALL” section on page 26-1. Must not be null.
<REPTINVL>	<p>Reporting interval. How often a report is generated and sent to the appropriate operating system (OS). Specifies how often a PM report is generated. The format is VAL-UN, where valid values for VAL (value) are:</p> <ul style="list-style-type: none"> • 1 to 31 if UN (units of time) is DAY • 1 to 24 if UN is HR • 5 to 1440 if UN is MIN <p>Examples are 10-DAY, 12-HR, and 100-MIN.</p> <p>A null value for the input defaults to 15-MIN.</p> <p>REPTINVL is a string.</p>
<REPTSTATM>	<p>The start time for the PM report. The format is HOD-MOH, where HOD (hour of day) ranges from 0 to 23, and MOH (minute of hour) ranges from 0 to 59. If the input value of the starting time is smaller than the current time, for example, the input value is 5-30 (5:30 in the morning), and the current time is 10:30, the reporting will be scheduled to start at 5:30 the next day. A null value defaults to the current time of day. REPTSTATM is a string.</p>
<NUMREPT>	<p>The number of reports that the schedule is expected to produce. A value of 0 is used to delete a existing identical schedule. If NUMREPT is null, the schedule will be kept in effect until it is deleted. The value of NUMREPT will continue to be decremented even though the automatic PM reporting is inhibited. NUMREPT is an integer.</p>
<MONLEV>	<p>The discriminating level of the requested monitored parameter. It applies to all MONTYPE of the scheduled PM report. The null input defaults to 1-UP. MONLEV is a string. The format is LEV-DIRN, where valid values for LEV are decimal numbers, and valid values for DIRN are as follows:</p> <ul style="list-style-type: none"> • UP monitored parameter with values equal to or greater than the value of LEV will be reported. • DN monitored parameter with values equal to or less than the value of LEV will be reported.
<LOCN>	<p>Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. A null input defaults to NEND. FEND is not supported by all MOD2 types. The parameter type is LOCATION, which is the location where the action is to take place.</p>
<ul style="list-style-type: none"> • FEND • NEND 	<ul style="list-style-type: none"> Action occurs on the far end of the facility. Action occurs on the near end of the facility.
<TMPER>	<p>(Optional) Accumulation time period for performance counters. Defaults to 15-MIN. The parameter type is TMPER, which is the accumulation time period for the performance management center.</p>

• 1-DAY	Performance parameter accumulation interval length; every 24 hours. For SONET PM data, only one day of history data is available. For remote monitoring (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.
• 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.
<TMOFST>	<p>Time offset between reporting/diagnostics/exercises; from the end of the last complete accumulation time period to the beginning of the accumulation time period specified by TMPER. The format is DAY-HR-MIN where DAYS (days) ranges from 0 to 99, HR (hours) ranges from 0 to 23, and MIN (minutes) ranges from 1 to 59. A null value defaults to 0-0-0. Grouping of this parameter is not supported.</p> <p>If the value specified is larger than the maximum length of PM history the system is saving, there will be no PM report for the PM schedule generated. For example, if a PM schedule for OC48 is created with TMOFST of 2-1-0 (format: day-hour-minute), no report will be generated because the system can only hold two days worth of PM history. For setting 15-MIN schedules, the system can only hold 32 15-MIN buckets, which totals eight hours. Therefore, a schedule greater than 0-8-0 will not result in PM schedules being generated. TMOFST is a string.</p>