SCHED Commands

This chapter provides schedule (SCHED) commands for the Cisco NCS 2002 and Cisco NCS 2006..

24.1 SCHED-PMREPT-<MOD2>

The Schedule Performance Monitoring Report for 10GFC, 10GIGE, 40GIGE, 100GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, 4GFC, 4GFICON, 5GIB, 8GFC, VC412C, T1, T3, VC432C, VC46C, OTU2, PASSTHRU, ILK, CHGRP, CLNT, D1VIDEO, DS3I, DV6000, DVBASI, E1, E3, E4, ESCON, ETRCLO, ETH, FSTE, G1000, GFPOS, GIGE, HDLC, HDTV, ISC1, ISCCOMPAT, ISC3PEER2R, ISC3PEER1G, ISC3PEER2G, STM4, STM64, STM1, STM16, OCH, OMS, OTS, OTU3, OTU4, POS, STM1E, VC3, VC44C, VC464C, VC48C, VC4, VC416C, VC412C, VC42C, VC43C, VC12, VC3, VC11, or VC12 (SCHED-PMREPT-\<MOD2\>) command schedules or reschedules the network element (NE) to report the performance monitoring data for a line facility or for a VC/VT path periodically, using the automatic REPT PM message. This command can also remove the previously created schedule. See Table 29-1 on page 29-1 for supported modifiers by platform.

Usage Guidelines

- The automatic performance monitoring reporting scheduled by this command is inhibited by default. ALW-PMREPT-ALL can be used to allow the NE to send the performance monitoring report. INH-PMREPT-ALL can be used to stop the NE from sending the performance monitoring report. The schedules created for the NE can be retrieved by RTRV-PMSCHED command.
- The deletion of the schedule for the automatic performance monitoring reporting can be done by issuing SCHED-PMREPT-<MOD2> with the NUMREPT parameter equal to zero.
- 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 performance monitoring 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-connect 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-connect has not been created.
- The number of outstanding performance monitoring reports counter (NUMREPT) will not be decremented, and the scheduled automatic performance monitoring 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.

  The "Duplicate Schedule" error message 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 NUMINVL parameter equal to zero when retrieved by the RTRV-PMSCHED command, that is, no more performance monitoring reporting sent) the new schedule with the identical parameter will replace the existing schedule.

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

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

- VC11 level schedules cannot be created on optical ports because the VT level PMs are monitored only on the path terminating ports.

- A PM schedule cannot be created on the Electrical Protect card.

Category Performance

Security Retrieve

Input Format SCHED-PMREPT-<MOD2>:[<TID>]:<SRC>:<CTAG>::[<REPTINVL>],[<REPTSTATM>], [<NUMREPT>],,[<MONLEV>],[<LOCN>],,[<TMPER>],[<TMOFST>];

Input Example SCHED-PMREPT-STM1:NE-NAME:FAC-3-1:123::60-MIN, 15-30,100,,1-UP,NEND,,15-MIN,0-0-15;

Table 24-1 Parameter Support

Parameter	Description
<SRC>	Access identifier from the "27.1 ALL" section on page 27-1. Must not be null.
<REPTINVL>	(Optional) Reporting interval. How often a report is to generated and sent to the appropriate operating system. Specifies how often a performance monitoring report is generated. The format is VAL-UN, where valid values for VAL (value) are 1 to 31 if UN (units of time) is DAY, VAL is 1 to 24 if UN is HR, or VAL is 1 to 1440 if UN is MIN. Examples are: 10-DAY, 12-HR, and 100-MIN. A null value for the input defaults to 15-MIN. REPTINVL is a string **Note** Processing of PM schedules is performed every 5 minutes, therefore specifying a REPTINVL of 5-MIN or less would be processed at the earliest every 5 minutes.
<REPTSTATM>	(Optional) The starting time for the performance monitoring 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.
<NUMREPT>	(Optional) 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 performance monitoring reporting is inhibited. NUMREPT is an integer.
<MONLEV>	(Optional) The discriminating level of the requested monitored parameter. It applies to all MONTYPEs of the scheduled performance monitoring report. The format is LEV-DIRN, where valid values for LEV are decimal numbers, and valid values for DIRN are as follows: 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. The null input defaults to 1-UP. MONLEV is a string.
<LOCN>	(Optional) 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.
• FEND	Action occurs on the far end of the facility.
• NEND	Action occurs on the near end of the facility.
<TMPER>	(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.

Table 24-1 Parameter Support

Parameter	Description
• 1-DAY	Performance parameter accumulation interval length is 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 is every 1 hour. This is only applicable to remote monitoring (RMON) managed PM data. There are 24 hours of history data available.
• 1-MIN	Performance parameter accumulation interval length is 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 is 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 starts from the last time the counters were cleared. This is only applicable to RMON managed PMs.
<TMOFST>	(Optional) 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. 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 STM16 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.