



# CHAPTER 13

## EX Commands

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This chapter provides exercise (EX) commands for the Cisco ONS 15454 SDH, Cisco ONS 15454 M2, and Cisco ONS 15454 M6.



### Note

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

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### 13.1 EX-SW-<STM\_MSSPR>

The Exercise Protection Switch for STM4, STM16, STM64, and STM256 (EX-SW-<STM\_MSSPR>) command exercises the algorithm for switching from a working facility to a protection facility without actually performing a switch. It is assumed that the facility being exercised is the working card. The exercise switching success or failure result will be indicated by an automatic alarm. See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

#### Usage Guidelines

- Exercise switch for the SDH protection line is not supported in this release. If you send this command to the protection card, an error message will be returned. In addition to all normal INPUT, EQUIPAGE, and PRIVILEGE error codes, the following error codes are also included in this command:
  - Status, Not in Valid State (SNVS)
  - Status, Requested Operation Failed (SROF)
  - Status, Switch Request Denied (SSRD)
- If you send the EX-SW-<STM\_MSSPR> command to both east and west sides/spans of a two-fiber or four-fiber ring within a short time period (less than 30 to 45 seconds) the system will only execute one (WEST) side EXER-RING query, and preempt the other (EAST) side query. No event messages is reported for the preempted side, and it will be in APS-CLEAR switching state. This is applicable in the following situations:
  - A single command with both side/span AIDs (in the list AID format) of the same two-fiber or four-fiber ring
  - Separate queries (through Transaction Language One [TL1], Cisco Transport Controller [CTC], or TL1 and CTC) on both sides/spans of the same two-fiber or four-fiber ring
- DIRN is an optional parameter. A NULL value of this parameter defaults to BTH for a two-fiber or four-fiber MS-SPRing protection group. DIRN follows these rules:

- TRMT will always fail for any kind of protection group.
- For two-fiber and four-fiber MS-SPRing protection groups, both the RCV and TRMT direction will fail.
- Only BTH is a valid parameter. EX-SW-<STM\_TYPE> can be operated only on MS-SPRing protection groups.

**Category** MS-SPRing

**Security** Maintenance

**Input Format** EX-SW-<STM\_MSSPR>:[<TID>]:<AID>:<CTAG>::,[<SWITCHTYPE>],[<DIRECTION>];

**Input Example** EX-SW-STM16:CISCO:FAC-12-1:123::,SPAN,BTH;

**Table 13-1** Parameter Support

| Parameter     | Description   |
|---------------|---|
| <AID>         | Access identifier from the “ <a href="#">25.15 FACILITY</a> ” section on page 25-24. Identifies the facility in the NE to which the switch request is directed.   |
| <SWITCHTYPE>  | (Optional) Switch type. Must not be null. The parameter type is SWITCH_TYPE, which is the MS-SPRing switch type. MANWKSWBK, MANWKSWPR, FRCDWKSWBK, FRCDWKSWPR, LOCKOUTOFPR, and LOCKOUTOFWK are retrieve-only values for RTRV-PROTNSW-STM commands. They are not applicable for the OPR-PROTNSW-STM commands. RING and SPAN are the only allowed values for MS-SPRing protection. |
| • FRCDWKSWBK  | Working card is forced to switch back to working.   |
| • FRCDWKSWPR  | Working card is forced to switch to the protection card.  |
| • LOCKOUTOFPR | Lockout of protection.  |
| • LOCKOUTOFWK | Lockout of working.   |
| • MANWKSWBK   | Manual switch of working card back to working.  |
| • MANWKSWPR   | Manual switch of working card back to the protection card.  |
| • RING        | MS-SPRing ring switch type.   |
| • SPAN        | MS-SPRing span switch type.   |
| <DIRECTION>   | (Optional) Direction. A null value defaults to RCV. The parameter type is DIRECTION, which is the transmit and receive directions.  |
| • BTH         | Both transmit and receive directions  |
| • RCV         | Receive direction only  |
| • TRMT        | Transmit direction only   |