CHAPTER 5

CHG Commands

This chapter provides change (CHG) commands for the Cisco ONS 15454, Cisco ONS 15310-MA, and Cisco ONS 15600.

5.1 CHG-ACCMD-<MOD_TACC>

(Cisco ONS 15454, ONS 15310-MA, ONS 15600) The Change Test Access Mode for the DS1, DS3I, E1, E3, STS1, STS12C, STS192C, STS24C, STS3C, STS48C, STS6C, STS9C, T1, T3, VT1, or VT2 (CHG-ACCMD-<MOD_TACC>) command changes the test access (TACC) mode for the circuit being tested. This can be a change from monitoring the data to inserting data into the synchronous transport signal (STS). For more information about TACC, refer to the *Cisco ONS SONET TL1 Reference Guide*. See Table 27-1 on page 27-1 for supported modifiers by platform.

Usage Guidelines

This command can only be applied to an existing test access point (TAP) connection.

Caution

For this command to be applicable, first create the TAP using the ED-<MOD_PATH> command. Intrusive test access modes are traffic-affecting. If a facility/path is connected to a TAP in an intrusive test access mode, it is forced to go into the Out of Service, Maintenance (OOS-MT) state. The forced transition could be traffic-affecting. The present state of the facility/path is stored by the network element (NE) and is restored when the TAP connection is terminated. Test access connections are dropped automatically if the TL1 session is terminated or is timed out.

Note

- If there is no TAP connection, a DENY error message is returned.
- If a requested condition already exists, a SRCN error message is returned.
- If a requested access configuration is invalid, a SRAC error message is returned.
- If a requested TAP does not exist, a RTEN error message is returned.

Category

Troubleshooting and Test Access

Security Maintenance

Input Format CHG-ACCMD-<MOD_TACC>:[<TID>]:<TAP>: <CTAG>::<MD>;

Input Example CHG-ACCMD-STS1:CISCO:8:123::MONE;

Input Parameters

<TAP>	The test access point number. The TAP number must be an integer with a range of 1 to 999. It is a string. **Note** This command only supports changing the mode for a single TAP number at a time.
<MD>	The test access mode. (SPLTE, SPLTF, LOOPE, and LOOPF require an external quasi-random signal [QRS] input signal.) Single facility access digroup (FAD) test access does not support MONEF, SPLTEF, and SPLTAB modes. The parameter type is test access mode (TACC_MODE).
• LOOPE	Splits both the A and B paths. Connect the line incoming from the E direction to the line outgoing in the E direction, and connect this looped configuration to the FAD. The line outgoing in the F direction will have a QRS connected, and the line incoming from the F direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode.
• LOOPF	Splits both the A and B paths. Connect the line incoming from F direction to the line outgoing in the F direction, and connect this looped configuration to the FAD. The line outgoing in the E direction will have a QRS connected, and the line incoming from the E direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode.
• MONE	Indicates that a monitor connection will be provided from the FAD to the A transmission path of the accessed circuit.
• MONEF	Indicates that a monitor connection will be provided for the following: • From the FAD1 to a dual FAD (DFAD), or from the odd pair of a facility access path (FAP) to the A transmission path • From the FAD2 of the same DFAD or the even pair of a FAP, to the B transmission path of the accessed circuit
• MONF	Indicates that a monitor connection will be provided from the FAD to the B transmission path of the accessed circuit.
• SPLTA	Indicates that a connection will be provided from both the E and F sides of the A transmission path of the circuit under test to the FAD and split the A transmission path. Intrusive test access mode.
• SPLTB	Indicates that a connection will be provided from both the E and F sides of the B transmission path of the circuit under test to the FAD and split the B transmission path. Intrusive test access mode.

• SPLTE	Splits both the A and B paths and connect the E side of the accessed circuit to the FAD. The line outgoing in the F direction will have a QRS connected, the line incoming from the F direction will have a QRS connected, and the line incoming from the E direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode.
• SPLTEF	Splits both the A and B paths, and connect the E side of the accessed circuit to FAD1 and the F side to FAD2. Intrusive test access mode.
• SPLTF	Splits both the A and B paths, and connect the F side of the accessed circuit to the FAD. The line outgoing in the E direction will have a QRS connected, the line incoming in the E direction will have a QRS connected, and the line incoming from the E direction will be terminated by the nominal characteristic impedance of the line. Intrusive test access mode.

5.2 CHG-EQPT

(Cisco ONS 15454) The Change Equipment (CHG-EQPT) command performs an in-service upgrade from low density (LD) electrical cards (DS1 [DS1-14, DS1N-14], DS3 [DS3-12, DS3N-12, DS3NE-12], EC1, and DS3XM-6) to high density (HD) electrical cards (DS1/E1-56, DS3/EC1-48, and DS3XM-12).

Usage Guidelines

- For Software Release 6.0 and later, only limited upgrades are supported, such as upgrading one LD DS3-12 card to one HD DS3/EC1-48 card.
- Optical (OC-N) card upgrades and downgrades are supported with the limitations of the MRC-12 card.
- Compatible equipment types for card upgrade:
  - DS3XM-6 to DS3XM-12
  - DS-3/DS3-N/DS3-E/DS3N-E to DS3/EC1-48
  - DS-1/DS1-N to DS1/E1-56
- Provisioning rules for card upgrade:
  - DS1-14 and DS1N-14 cards that are provisioned in Slot 1, 2, 3, 15, 16, or 17 should be upgraded to DS1/E1-56.
  - DS1-14 and DSN-14 cards that are provisioned in Slot 4, 5, 6, 12, 13, or 14 will fail when upgrading to DS1/E1-56.
  - DS3-12, DS3N-12, DS3E-12, and DS3N-12E cards that are provisioned in Slot 1, 2, 3, 15, 16, or 17 can be upgraded to DS3/EC1-48.
  - DS3-12, DS3N-12, DS3E-12, and DS3N-12E cards that are provisioned in Slot 4, 5, 6, 12, 13, or 14 will fail when upgrading to DS3/EC1-48.
  - Two upgradable cards provisioned in a 1:1 protection group cannot be upgraded.

Category Equipment

Security Maintenance

Input Format

CHG-EQPT:[<TID>]:<AID>:<CTAG>::<EQPTTYPE>:[PPMTYPE=PPMTYPE>],
[PPMNUM=<PPMNUM>],[PORTNUM=<PORTNUM>],[PORTRATE=<PORTRATE>];

Input Example

CHG-EQPT::SLOT-14:1::MRC-2.5G-4:PPMTYPE=PPM-1,PPMNUM=1,PORTNUM=1,
PORTRATE=OC48;

Input Parameters

<SRC>	The source access identifier from the "25.14 EQPT" section on page 25-33.
<EQPTTYPE>	The equipment type to be upgraded. The parameter type is EQUIPMENT_TYPE.
• 10DME-C	10DME-C card
• 10DME-L	10DME-L card
• 32DMX	(ONS 15454) 32 channel demultiplexer
• 32DMX-L	(ONS 15454) 32 channel demultiplexer unit for L-band
• 32DMX-O	(ONS 15454) 32 channel unidirectional optical demultiplexer
• 32MUX-O	(ONS 15454) 32 channel unidirectional optical multiplexer
• 32WSS	(ONS 15454) 32 channel optical wavelength selective switch
• 32WSS-L	(ONS 15454) 32 channel wavelength switch selector unit for L-band
• 4MD-xx.x	(ONS 15454) Optical multiplexer/demultiplexer with 4 channels
• AD-1B-xx.x	(ONS 15454) Optical add/drop multiplexed (OADM) 1 band filter
• AD-1C-xx.x	(ONS 15454) Optical add/drop multiplexed (OADM) 1 channel filter
• AD-2C-xx.x	(ONS 15454) Optical add/drop multiplexed (OADM) 2 channel filter
• AD-4B-xx.x	(ONS 15454) Optical add/drop multiplexed (OADM) 4 band filter
• AD-4C-xx.x	(ONS 15454) Optical add/drop multiplexed (OADM) 4 channel filter
• AIC-I	(ONS 15454) AIC-I card
• ASAP	(ONS 15600) Any service any port carrier card with 4 PIM slots
• CE-1000-4	(ONS 15454) CE-1000-4 card
• CE-100T-8	(ONS 15454, ONS 15310-CL, ONS 15310-MA) Eight port 100T card
• CTX2500	(ONS 15310-MA) CTX2500 card
• DS1	(ONS 15454) DS1 card
• DS1-28/DS3-EC1-3	(ONS 15310-MA) DS1-28/DS3-EC1-3 card
• DS1-84/DS3-EC1-3	(ONS 15310-MA) DS1-84/DS3-3 card
• DS1/E1-56	(ONS 15454) DS1/E1-56 card
• DS1N	(ONS 15454) DS1N card
• DS3	(ONS 15454) DS3 card
• DS3/EC1-48	(ONS 15454) DS3/EC1-48 card
• DS3i-N-12	(ONS 15454) DS3i-N-12 card
• DS3N	(ONS 15454) DS3N card
• DS3NE	(ONS 15454) DS3NE card
• DS3XM-6	(ONS 15454) DS3XM-6 card
• DS3XM-12	(ONS 15454) DS3XM-12 card

• E1000-2	(ONS 15454) E1000-2 card
• E1000-2-G	(ONS 15454) E1000-2-G card
• E100T	(ONS 15454) E100T card
• EC1	(ONS 15454) EC1 card
• FC_MR-4	(ONS 15454) FC_MR-4 card
• FILLER-CARD	Blank Filler card
• G1K-4	(ONS 15454) Four port G1000 card
• ML100T-8	(ONS 15310-CL, ONS 15310-MA) Mapper card
• ML1000-2	(ONS 15454) ML-Series two port gigabit Ethernet card
• ML100T-12	(ONS 15454) ML-Series 12 port FSTE card
• ML100X-8	(ONS 15454) Eight port 100T card with optical interface
• MMU	(ONS 15454) Multiring/mesh upgrade unit
• MRC-12	(ONS 15454) 12 port multirate optical card
• MRC-2.5G-4	(ONS 15454) 4-port MRC 2.5G card
• MRC-2.5G-12	(ONS 15454) 12-port MRC 2.5G card
• OC3	(ONS 15454) OC-3 card
• OC3-8	(ONS 15454) Eight port OC-3 card
• OC12	(ONS 15454) OC-12 card
• OC12-4	(ONS 15454) Four port OC-12 card
• OC48	(ONS 15454, ONS 15600) OC-48 card
• OC48-16	(ONS 15454) 16 port OC-48 card
• OC192	(ONS 15454, ONS 15600) OC-192 card
• OC192-4	(ONS 15454) Four port OC-192 card
• OC192-XFP	(ONS 15454) One port OC-192 XFP
• OPT-AMP-L	(ONS 15454) Optical preamplifier unit for L-Band
• OPT-BST	(ONS 15454) Optical booster amplifier
• OPT-BST-L	(ONS 15454) Optical booster unit for L-Band
• OPT-PRE	(ONS 15454) Optical preamplifier
• OSC-CSM	(ONS 15454) Optical service channel (OSC) with combiner/separator Module (SCM)
• OSCM	(ONS 15454) Optical service channel module
• PIM-1	(ONS 15600) One port pluggable interface module
• PIM-4	(ONS 15600) Four port pluggable interface module
• PPM-1	(ONS 15454, ONS 15600, ONS 15310-CL, ONS 15310-MA) Pluggable port module with one SFP port
• SHELF	Shelf entity
• SSXC	(ONS 15600) Cross-connect card
• TCC	(ONS 15454) TCC card
• TXP_MR_10E	(ONS 15454) 10-Gbps multirate transponder-100-GHz-tunable xx.xx-xx.xx card
• TXP_MR_10E_C	(ONS 15454) 10-Gbps multirate transponder-100-GHz-tunable xx.xx-xx.xx card for C-band

• TXP_MR_10E-L	(ONS 15454) 10-Gbps multirate transponder-100-GHz-tunable xx.xx-xx.xx card for L-band
• TXP_MR_10G	(ONS 15454) 10-Gbps multirate transponder-100-GHz-tunable xx.xx-xx.xx card
• TXP_MR_2.5G	(ONS 15454) 2.5-Gbps multirate transponder-100-GHz-tunable xx.xx-xx.xx card
• TXPP_MR_2.5G	(ONS 15454) 2.5-Gbps multirate transponder-protected-100-GHz-tunable xx.xx-xx.xx card
• UNKNOWN	Unknown equipment type
• UNPROVISIONED	Unprovisioned type
• XC10G	(ONS 15454) XC10G card
• XCVT	(ONS 15454) XCVT card
• XC-VXC-10G	(ONS 15454) XC-VXC-10G card
<PPMTYPE>	Identifies the pluggable port module type.
• PPM-1	Single-port PPM
<PPMNUM>	Identifies the pluggable port module number.
• 1	PPM No. 1
• 2	PPM No. 2
• 3	PPM No. 3
• 4	PPM No. 4
• 5	PPM No. 5
• 6	PPM No. 6
• 7	PPM No. 7
• 8	PPM No. 8
• 9	PPM No. 9
• 10	PPM No. 10
• 11	PPM No. 11
• 12	PPM No. 12
<PORTNUM>	Identifies the port number, which is used on the entity port with PPM.
• 1	Port No. 1
<PORTRATE>	Identifies the port rate, which is used to specify the port rate of the multi-rate card.
• OC3	OC-3 rate
• OC12	OC-12 rate
• OC48	OC- 48 rate