

O3-12D1DN NMA TL1 GUIDE

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1 INTRODUCTION

This Guide describes the transaction language 1 (TL1) commands that can be used with the Engenuity/Pulsecom® O3-12D1DN, an OC3 to 12 DS1s Synchronous Optical Network (SONET) Multiplexer (mux).

Data Communications Channel (DCC) TL1 commands for the O3-3D3DN mux can be found in Practice Section 1708. Refer to Practice Section 1639 for O3-4D1B, O3-4D1L3B, O3-12D1D, and O3-12D1L3D DCC TL1 commands.

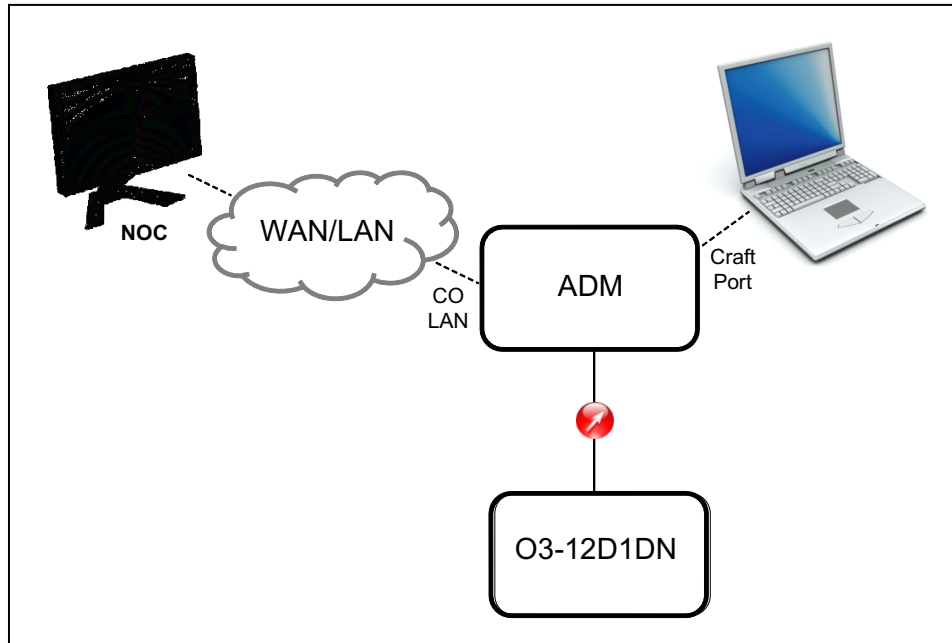
1.1 Reason for Reissue

This practice has been reissued to correct the maximum number of characters for the System ID, SID, and specify that Password Identifier, PID, and User Identifier, UID, are no longer case-sensitive in newer O3-12D1DN units.

1.2 Description

The O3-12D1DN supports several means of accessing TL1 messaging:

- When one O3-12D1DN is installed at a Remote site (typically a subscriber site) and operated in single-ended mode via connection to an OC3 drop port of a higher-order system [such as an Add/Drop Multiplexer (ADM)], TL1 messages can be accessed from the higher-order system's craft port or from the higher-order system's Ethernet management port, as shown in Figure 1. The O3-12D1DN unit's RS-232 Craft Port provides access to local provisioning, maintenance, and performance information via a standard craft port text menu. When used in this mode, the O3-12D1DN must be set to its default command response of User. The higher order system must use a command response of Network.
- When a pair of O3-12D1DN units is deployed in a bookend configuration, the near-end unit's RS-232 Craft Port provides TL1 access to the Remote unit's provisioning, maintenance, and performance data and access to the local unit's provisioning, maintenance, and performance information via a standard craft port text menu.
- When deployed in a Bookend configuration, the O3-12D1DN also includes an Ethernet Management (MGMT) Port designed to be connected to a Central Office (CO) Router via Transmission Control Protocol/Internet Protocol (TCP/IP) connections. It provides simultaneous Network Monitoring and Analysis (NMA) TL1 access to both near-end and far-end O3-12D1DN units in a bookend configuration as shown in Figure 2.



NOTE: WAN = Wide Area Network; LAN = Local Area Network.

Figure 1: Typical Single-Ended Management Connection Configuration

The following Remote capabilities are available:

- Security measures, including an ability to block selected users so that network personnel can override improper provisioning by a local craftsman who cannot be reached by telephone, pager, or orderwire.
- Alarm status.
- Performance reports over a period of up to one week: Performance monitoring (PM) capabilities include GR-253-CORE threshold tracking so that a Network Operations Center (NOC) can receive early warning of performance degradation.
- Network (also called Terminal) loopbacks toward a CO as well as Line (also called Facility) loopbacks toward the subscriber: The Craft Port, for example, can override a DCC TL1 loopback command, but doing so creates an autonomous message that notifies a NOC of the change.
- Remote provisioning of each DS1, including in-service or out-of-service so that more lines can be remotely added; alternate mark inversion (AMI) or bipolar with 8-zero substitution (B8ZS); and superframe (SF), extended superframe (ESF), or unframed framing.

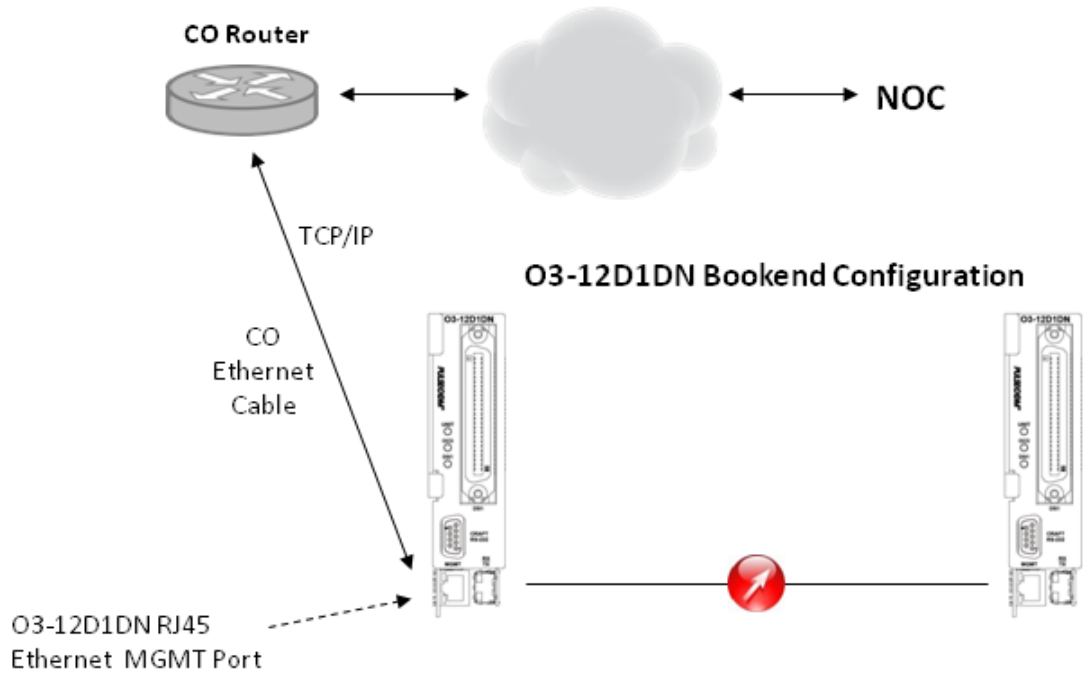


Figure 2: Typical CO-Side and Remote-Side Simultaneous NMA TL1 Access Via the O3-12D1DN Ethernet MGMT Port

1.3 Symbol Definitions

- ^ space
- [] optional parameter
- < > symbol specifier
- , separates options within a parameter
- : separates parameters within a command line
- ; end of command

2 TL1 COMMANDS

2.1 Activate Function

2.1.1 ACT-USER

Activate User – Use this command to log into the network element (NE).
 Logon the user identified by the given UID.
 Use command to initiate a TL1 session with the unit.

ACT-USER:[<tid>]:<uid>:<ctag>::<pid>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<uid> = user identifier (1 – 10 alphanumeric characters); case-sensitive in older O3-12D1DN units; factory default = ROOT.

<ctag> = correlation tag.

<pid> = password identifier for user login (1 – 10 alphanumeric characters); case-sensitive in older O3-12D1DN units; factory default = ROOT#01.

Example 1 -- Correct Input and Typical Response for ACT-USER

<i>Correct Input</i>	act-user:PULSECOM2:ROOT:1::ROOT#01;
<i>Typical Response</i>	<pre> PULSECOM2 08-06-02 10:23:21 M 1 COMPLD "ROOT:LASTLOGIN=Mon Jun 2 10:20:48 2008, UNSUCCESSATTEMPTS=0" ; PULSECOM2 08-06-02 10:23:21 A 0 REPT EVT SESSION "ROOT:NO," /*NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution.* ; </pre>

Example 2 -- Incorrect Input and Typical Response for ACT-USER

<i>Incorrect Input</i>	act-user:PULSECOM2:ROOT:1::ROOT#02;
<i>Typical Response</i>	PULSECOM2 08-06-02 10:26:04 M 1 DENY ;

2.2 Allow Function

2.2.1 **ALW-LOG-SECU**

Allow Log Security – Use this command to allow entries into the security log.

ALW-LOG-SECU:[<tid>]:[<aid>]:<ctag>::<eventType>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

<eventType> = events for which recording is inhibited: EIUA.

Example -- Correct Input and Typical Response for ALW-LOG-SECU

<i>Correct Input</i>	alw-log-secu:PULSECOM2::1::EIUA;
<i>Typical Response</i>	PULSECOM2 09-02-27 09:40:11 M 1 COMPLD ;

2.2.2 **ALW-LPBK-T1**

Allow Loopback T1 – Use this command to allow the automatic detection of loopback and entrance into a loopback state requested by codes sent over the T1 line (T1-1 through T1-12, as appropriate).

ALW-LPBK-T1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for ALW-LPBK-T1

<i>Correct Input</i>	alw-lpbk-t1:PULSECOM2:t1-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-02 11:32:14 M 1 COMPLD ; PULSECOM2 08-06-02 11:32:14 A 6 REPT DBCHG "TIME=11-32,DATE=06-02,SOURCE=PULSECOM2,LINKID=DCC, USERID=,DBCHGSEQ=3:ALW-LPBK-DS1:T1-1:" ;

2.2.3 **ALW-MSG-ALL**

Allow Message All – Use this command to transmit all autonomous messages.

ALW-MSG-ALL:[<tid>]::<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for ALW-MSG-ALL

<i>Correct Input</i>	alw-msg-all:PULSECOM2::1;
<i>Typical Response</i>	PULSECOM2 08-06-02 12:37:28 M 1 COMPLD ;

2.2.4 ALW-PMREPT-ALL

Allow Performance Monitoring Report All – Use this command to allow/resume processing of all performance monitoring reports that were inhibited.

ALW-PMREPT-ALL:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; aid must be blank or ALL.

<ctag> = correlation tag.

Example 1 -- Correct Input and Typical Response for ALW-PMREPT-ALL (AID is blank)

<i>Correct Input</i>	alw-pmrept-all:PULSECOM2::1;
<i>Typical Response</i>	PULSECOM2 09-06-22 09:09:22 M 1 COMPLD ; PULSECOM2 09-06-22 09:09:22 A 1910 REPT DBCHG "TIME=09-09,DATE=06-22,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=71:ALW-PM-DS1:T1-6:" ;

Example 2 -- Correct Input and Typical Response for ALW-PMREPT-ALL (AID=all)

<i>Correct Input</i>	alw-pmrept-all:PULSECOM2:all:1;
<i>Typical Response</i>	PULSECOM2 09-06-22 09:11:08 M 1 COMPLD ; PULSECOM2 09-06-22 09:11:08 A 1912 REPT DBCHG "TIME=09-11,DATE=06-22,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=73:ALW-PM-DS1:T1-6:" ;

2.2.5 ALW-PMREPT-OC3

Allow Performance Monitoring Report OC3 – Use this command to allow/resume processing of OC3 performance monitoring reports that were inhibited.

ALW-PMREPT-OC3:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for ALW-PMREPT-OC3

<i>Correct Input</i>	alw-pmrept-oc3:PULSECOM2:oc3-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-06 11:43:16 M 1 COMPLD ; PULSECOM2 08-06-06 11:43:16 A 11 REPT DBCHG "TIME=11-43,DATE=06-06,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=7:ALW-PM-OC3:OC3-1:" ;

2.2.6 **ALW-PMREPT-STS1**

Allow Performance Monitoring Report STS1 – Use this command to allow/resume processing of STS-1 performance monitoring reports that were inhibited.

ALW-PMREPT-STS1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, oc3-1-1 identifies the first STS-1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for ALW-PMREPT-STS1

<i>Correct Input</i>	alw-pmrept-sts1:PULSECOM2:oc3-1-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-06 11:43:51 M 1 COMPLD ; PULSECOM2 08-06-06 11:43:51 A 12 REPT DBCHG "TIME=11-43,DATE=06-06,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=8:ALW-PM-STS:OC3-1-1:" ;

2.2.7 **ALW-PMREPT-T1**

Allow Performance Monitoring Report T1 – Use this command to allow/resume processing of T1 performance monitoring reports that were inhibited.

ALW-PMREPT-T1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for ALW-PMREPT-T1

<i>Correct Input</i>	alw-pmrept-t1:PULSECOM2:t1-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-06 11:44:22 M 1 COMPLD ; PULSECOM2 08-06-06 11:44:22 A 13 REPT DBCHG "TIME=11-44,DATE=06-06,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=9:ALW-PM-DS1:T1-1:" ;

2.2.8 **ALW-USER-SECU**

Allow User Security – Use this command to allow a user ID to establish a session with the system. Note that the special user ID ROOT cannot be allowed/inhibited.

ALW-USER-SECU:[<tid>]:[<aid>]:<ctag>::<uidList>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

<uidList> = user identifier list.

Example 1 -- Correct Input and Typical Response for ALW-USER-SECU

<i>Correct Input</i>	alw-user-secu:PULSECOM2::1::username;
<i>Typical Response</i>	PULSECOM2 70-01-01 00:21:32 M 1 COMPLD ;

Example 2 -- Incorrect Input and Typical Response for ALW-USER-SECU

<i>Incorrect Input</i>	alw-user-secu:PULSECOM2::1::ROOT;
<i>Typical Response</i>	PULSECOM2 09-06-22 08:55:43 M 1 DENY IDNV /*INPUT, DATA NOT VALID*/ ;

2.3 Cancel Function

2.3.1 **CANC-USER**

Cancel User – Use this command to log out of the network element.

Use command to logoff the user.

Use command to terminate a TL1 session. The interface automatically logs out if the system is idle for 5 minutes, unless one of the following exceptions applies:

- ROOT never times out.
- Any user with the “NoTmout” UAP configured never times out.

CANC-USER:[<tid>]:<uid>:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<uid> = user identifier (1 – 10 alphanumeric characters); case-sensitive in older O3-12D1DN units; factory default = ROOT.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for CANC-USER

<i>Correct Input</i>	canc-user:PULSECOM2:ROOT:1;
<i>Typical Response</i>	PULSECOM2 08-06-02 12:43:26 M 1 COMPLD ;

2.3.2 **CANC-USER-SECU**

Cancel User ID Security – Use this command to disconnect a user’s session.

CANC-USER-SECU:<tid>:<uid>:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<uid> = user identifier (1 – 10 alphanumeric characters); case-sensitive in older O3-12D1DN units; factory default = ROOT.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for CANC-USER-SECU

<i>Correct Input</i>	canc-user-secu:PULSECOM2:username:1;
<i>Typical Response</i>	PULSECOM2 70-01-01 00:22:52 M 1 COMPLD ;

2.4 Delete Function

2.4.1 **DLT-T1**

Delete T1 – Use this command to delete the given T1 facility from the internal database. The command also deletes all traffic-bearing capability on the associated VT.

CAUTION: Executing this command could be service affecting.

DLT-T1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-2 identifies the second T1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for DLT-T1

<i>Correct Input</i>	dlt-t1:PULSECOM2:t1-2:1;
<i>Typical Response</i>	PULSECOM2 08-06-02 14:09:02 M 1 COMPLD ; PULSECOM2 08-06-02 14:09:02 A 22 REPT DBCHG "TIME=14-09,DATE=06-02,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=11:DLT-DS1:T1-2:" ;

2.4.2 **DLT-USER-SECU**

Delete User Security – Use this command to delete an existing user account.
Remove a user ID from the system.

DLT-USER-SECU:[<tid>]:<uid>:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<uid> = user identifier (1 – 10 alphanumeric characters); case-sensitive in older O3-12D1DN units; factory default = ROOT.

.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for DLT-USER-SECU

<i>Correct Input</i>	dlt-user-secu:PULSECOM2:username:1;
<i>Typical Response</i>	PULSECOM2 09-02-03 19:58:29 M 1 COMPLD ;

2.5 Edit Function

2.5.1 **ED-DAT**

Edit Date – Use this command to edit the system date and time.

ED-DAT:[<tid>]::<ctag>::[<date>],[<time>];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<ctag> = correlation tag.

<date> = current date in year-month-day (YY-MM-DD) format.

<time> = current time in hour-minute-second (hh-mm-ss) format.

Note that at least one of the [<date>] and [<time>] parameters must be set.

Example -- Correct Input and Typical Response for ED-DAT

<i>Correct Input</i>	ed-dat:PULSECOM2::1::08-06-02,12-47-00;
<i>Typical Response</i>	PULSECOM2 08-06-02 12:47:00 M 1 COMPLD ;

2.5.2 ED-EQPT

Edit Equipment – Use this command to edit role (from CO to Remote capability) of unit and to enable or inhibit reporting of unrecognized SFP devices.

ED-EQPT:[<tid>]:[<aid>]:<ctag>::[role=<role>][,sfpalminh=<sfpalminh>]:[pst];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: unit.

<ctag> = correlation tag.

<role> = side of network: customer-premises equipment network termination (co or remote).

<sfpalminh> = unrecognized SFP alarm inhibition (yes or y; no or n).

pst = primary state: in-service (is) or out-of-service (oos).

Example -- Correct Input and Typical Response for ED-EQPT

<i>Correct Input</i>	ed-eqpt:PULSECOM2:unit:1:::role=remote,sfpalminh=y:is;
<i>Typical Response</i>	PULSECOM2 08-06-02 12:48:36 M 1 COMPLD ;

2.5.3 **ED-MGMT**

Edit Management – Use this command to set echo, configuration (bookend or single-ended) or a Peer TID.

NOTE: Changing these settings may cause a TL1 session to close, thus requiring the user to log-in again.

ED-MGMT::<<ctag>:::[ECHO=<echo>],BOOKEND=[<bookend>],PEERTID=[<peertid>];

<ctag> = correlation tag.

<echo> = echo action defines the response behavior after the O3-12D1DN unit receives a TL1 command; (yes or y – commands will be echoed back the command to the Telnet or NMA session; no or n- will result in no echo).

<bookend> = configuration of the O3-12D1DN application; (yes or y; no or n). Yes signifies a Bookend configuration; No signifies a single-ended application.

<peertid> = target identifier (network address) of the unit located at the far-side of the network; factory default = PULSECOM2 (for O3-12D1DN set as CO) **or** PULSECOM (for O3-12D1DN set as Remote).

Example -- Correct Input and Typical Response for ED-MGMT

<i>Correct Input</i>	ed-mgmt::1:::echo=y,bookend=n,peertid=PULSECOM2;
<i>Typical Response</i>	PULSECOM 08-06-02 12:48:36 M 1 COMPLD ;

2.5.4 ED-NLP

Edit Network Layer Protocol – Use this command to edit the Area Address associated with the DCC .

ED-NLP:[<tid>]::<ctag>:::[areaaddr=<areaaddr>];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<ctag> = correlation tag.

<areaaddr> = area address of unit (26 hexadecimal digits).

Example -- Correct Input and Typical Response for ED-NLP

<i>Correct Input</i>	ed-nlp:PULSECOM2::1:::areaaddr=39840F80000000000000000000000000;
<i>Typical Response</i>	PULSE 08-06-02 12:48:36 M 1 COMPLD ;

NOTE: If the area address is modified, the TL1 connection to the unit will be lost and no response will be received.

2.5.5 ED-OC3

Edit OC3 – Use this command to edit the OC3 facility’s state or response to a received LOS condition.

CAUTION: Executing this command could be service affecting.

ED-OC3:[<tid>]:[<aid>]:<ctag>:::[losact=<losact>],[lpbktime=<lpbktime>]:[pst];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

<losact> = LOS action defines the behavior at the OC3 upon the advent of loss of signal; send an alarm indication signal (DS1_TX_AIS) or turn off the signal (DS1_TX_OFF) on all T1 lines.

<lpbktime> = timeout value for a loopback applied to the line. The accepted values in minutes are 1, 2, 4, 8, 60, or 0 (unlimited).

pst = primary state: in-service (is) or out-of-service (oos).

Example -- Correct Input and Typical Response for ED-OC3

<i>Correct Input</i>	ed-oc3:PULSECOM2:oc3-1:1:::losact=DS1_TX_AIS:is;
<i>Typical Response</i>	PULSECOM2 09-03-01 11:48:11 M 1 COMPLD ; PULSECOM2 09-03-01 11:48:11 A 20 REPT DBCHG "TIME=11-48,DATE=03-01,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=11:ED-OC3:OC3-1:" ;

2.5.6 **ED-PID**

Edit Password ID – Use this command to edit the current user’s password.

ED-PID:[<tid>]:<uid>:<ctag>::<oldpid>,<newpid>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<uid> = user identifier (1 – 10 alphanumeric characters).

<ctag> = correlation tag.

<oldpid> = old password identifier for user login (1 – 10 characters); case-sensitive in older O3-12D1DN units; factory default = ROOT#01.

<newpid> = new password identifier (1 – 10 characters). Older O3-12D1DN units require the PID to be 6-10 characters including at least one uppercase letter and one number, and cannot be the same as the user ID.

Example -- Correct Input and Typical Response for ED-PID

<i>Correct Input</i>	ed-pid:PULSECOM2:username:1::Username#1,Username#2;
<i>Typical Response</i>	PULSECOM2 09-02-12 14:42:19 M 1 COMPLD ;

2.5.7 ED-T1

Edit T1 – Use this command to edit the state or configuration of the given T1 facility (T1-1 through T1-12, as appropriate).

CAUTION: Executing this command could be service affecting.

```
ED-T1:[<tid>]:[<aid>]:<ctag>::[name=<name>][,eqlz=<eqlz>][,fmt=<fmt>]
[,linecde=<linecde>][,losact=<losact>][,lpbktime=<lpbktime>][,lpbkdnais=<lpbkdnais>]
[,aiscien=<aiscien>][,raicien=<raicien>][,nprmen=<nprmen>][,sprmen=<sprmen>]:[pst];
```

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

<name> = 12-character input for circuit identification. Note that **spaces** and **, ; : \ "** are invalid characters.

<eqlz> = equalization (line build-out) parameter defines the signal strength necessary for the wire. The value can be expressed in feet or decibels: If in decibels, the allowed input values are 0db, 7.5db, 15db, or 22db; if in feet, the input value ranges from 0 to 633.

<fmt> = framing format: unframed (unf), extended superframe (esf), or superframe (sf).

<linecde> = line code: alternate mark inversion (ami) or bipolar with 8-zero substitution (b8zs).

<losact> = LOS action defines the behavior of the signal on this line in the advent of loss of signal at the input (receive side) of the T1 line. The allowed input values are send an alarm indication signal downstream (ais) or create a line loopback (lpbk).

<lpbktime> = timeout value for a loopback applied to the line. The accepted values in minutes are 1, 2, 4, 8, 60, or 0 (unlimited).

<lpbkdnais> = loopback down on AIS: yes or y; no or n.

<aiscien> = alarm indication signal-customer interface: yes or y; no or n.*

<raicien> = remote alarm indication-customer interface: yes or y; no or n.*

<nprmen> = network performance report message enabled: yes or y; no or n.*

<sprmen> = supplementary performance report message enabled: yes or y; no or n.*

pst = primary state: in-service (is) or out-of-service (oos).

*Available only on O3-12D1DN set as Remote.

Example 1 -- Correct Input and Typical Response for ED-T1: O3-12D1DN Set as CO

<i>Correct Input</i>	ed-t1:PULSECOM:t1-1:1:::name=circuitname,eqlz=133,fmt=esf, linecde=b8zs,losact=ais,lpbktime=60,lpbkdnais=yes:is;
<i>Typical Response</i>	PULSECOM 70-01-04 02:09:52 M 1 COMPLD ; PULSECOM 70-01-04 02:09:52 A 13 REPT DBCHG "TIME=02-09,DATE=01-04,SOURCE=PULSECOM,LINKID=DCC, USERID=ROOT,DBCHGSEQ=1:ED-DS1:T1-1:" ;

Example 2 -- Correct Input and Typical Response for ED-T1: O3-12D1DN Set as Remote

<i>Correct Input</i>	ed-t1:PULSECOM2:t1-1:1:::name=circuitname,fmt=esf, linecde=b8zs,losact=ais,lpbktime=60,aiscien=yes,raicien=yes, nprmen=yes,sprmen=yes:is;
<i>Typical Response</i>	PULSECOM2 10-04-16 15:11:18 M 1 COMPLD ; PULSECOM2 10-04-16 15:11:18 A 1528 REPT DBCHG "TIME=15-11,DATE=04-16,SOURCE=PULSECOM2,LINKID=, USERID=ROOT,DBCHGSEQ=6:ED-DS1:T1-1:" ;

2.5.8 ED-USER-SECU

Edit User Security – Use this command to edit a user ID’s attributes, including user identifier, password, and privilege level.

NOTE: When communicating with older O3-12D1DN units, Caps Lock or converting a command to all upper case before editing a user account will result in an error. O3-12D1DN units with software version 02.01.01 or later are NOT case sensitive. Verify software version using RTRV-EQPT.

```
ED-USER-SECU:[<tid>]:<curruid>:<ctag>::<newuid>,<pid>,<cid>,<uap[&NoTmout]>:  
[page=<page>][,pcnd=<pcnd>][,pcnn=<pcnn>][,point=<point>][,uout=<uout>]  
[,lstoi=<lstoi>];
```

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<curruid> = current user identifier (1 – 10 alphanumeric characters).

<ctag> = correlation tag.

<newuid> = new/replacement user identifier; parameter contains the user name (maximum of 10 alphanumeric characters).

<pid> = password identifier for user login (1 – 10 characters), case-sensitive in older O3-12D1DN units.

<cid> = list of channels (such as TCP and UDP) through which a particular user has access.

<uap> = user access privilege level: Admin, User, or ReadOnly (case-sensitive in older O3-12D1DN units). **Admin** can issue all TL1 commands. **User** (default) can issue configuration commands but not security commands (any TL1 command with SECU). **ReadOnly** cannot issue any system or administrative commands but can retrieve system information. Each level can be set for no timeout (**&NoTmout**); otherwise, TL1 sessions time out after 5 minutes of inactivity.

<page> = password age, the amount of time the user is allowed to login without changing the password. After the page period has passed, the system prompts the user to change the password before pcnd or pcnn expiration completely disables the uid. Allowed page input values in days are 0 to 999; entering 0 will disable this parameter.

<pcnd> = the amount of time the user has to change the password after the page period has passed. Allowed pcnd input values in days are 0 to 999.*

<pcnn> = the number of times the user can log in after the page period has passed. Allowed pcnn input values in days are 0 to 999.*

*Note that pcnd and pcnn are mutually exclusive.

<point> = the minimum amount of time the user must wait to reuse an old password; this parameter is ignored.

<uout> = the amount of time the user can go without logging in. At the end of this interval, the uid is disabled. Allowed uout input values in days are 0 to 999; entering 0 will disable this parameter.

<lstoi> = list of objects or ports (or directory numbers) that a particular user is authorized to access; this parameter is ignored.

Example -- Correct Input and Typical Response for ED-USER-SECU

<i>Correct Input</i>	ed-user-secu:PULSECOM2:username:1::username1, Username#1,TCP,User:page=60,pcnd=7,point=20, uout=90,lstoi=1;
<i>Typical Response</i>	PULSECOM2 09-03-01 12:03:14 M 1 COMPLD ;

2.6 Enter Function

2.6.1 ENT-T1

Enter T1 – Use this command to create the given T1 facility in the internal database. The command also causes auto-creation of the cross-connect and auto-creation of the associated VT to provide traffic-bearer services.

```
ENT-T1:[<tid>]:[<aid>]:<ctag>:::[name=<name>][,eqlz=<eqlz>][,fmt=<fmt>]
[,linecde=<linecde>][,losact=<losact>][,lpbktime=<lpbktime>][,lpbkdnais=<lpbkdnais>]
[,aiscien=<aiscien>][,raicien=<raicien>][,nprmen=<nprmen>][,sprmen=<sprmen>]:[pst];
```

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

<name> = 12-character input for circuit identification. Note that **spaces** and **, ; : \ "** are invalid characters.

<eqlz> = equalization (line build-out) parameter defines the signal strength necessary for the wire. The value can be expressed in feet or decibels: If in decibels, the allowed input values are 0db, 7.5db, 15db, or 22db; if in feet, the input value ranges from 0 to 633.

<fmt> = framing format: unframed (unf), extended superframe (esf), or superframe (sf).

<linecde> = line code: alternate mark inversion (ami) or bipolar with 8-zero substitution (b8zs).

<losact> = LOS action defines the behavior of the signal on this line in the advent of loss of signal at the input (receive side) of the T1 line. The allowed input values are send an alarm indication signal downstream (ais) or create a line loopback (lpbk).

<lpbktime> = timeout value for a loopback applied to the line. The accepted values in minutes are 1, 2, 4, 8, 60, or 0 (unlimited).

<lpbkdnais> = loopback down on AIS: yes or y; no or n.

<aiscien> = alarm indication signal-customer interface: yes or y; no or n.*

<raicien> = remote alarm indication-customer interface: yes or y; no or n.*

<nprmen> = network performance report message enabled: yes or y; no or n.*

<sprmen> = supplementary performance report message enabled: yes or y; no or n.*

pst = primary state: in-service (is) or out-of-service (oos).

* Available only on O3-12D1DN set as Remote.

Example 1 -- Correct Input and Typical Response for ENT-T1: O3-12D1DN Set as CO

<i>Correct Input</i>	ent-t1:PULSECOM:t1-1:1:::name=circuitname,eqlz=133,fmt=esf, linecde=b8zs,losact=ais,lpbktime=60,lpbkdnais=Yes:is;
<i>Typical Response</i>	<pre> PULSECOM 70-01-04 02:30:08 M 1 COMPLD ; PULSECOM 70-01-04 02:30:08 A 17 REPT DBCHG "TIME=02-30,DATE=01-04,SOURCE=PULSECOM,LINKID=DCC, USERID=ROOT,DBCHGSEQ=4:ENT-DS1:T1-1:" ; </pre>

Example 2 -- Correct Input and Typical Response for ENT-T1: O3-12D1DN Set as Remote

<i>Correct Input</i>	ent-t1:PULSECOM2:t1-1:1:::name=circuitname,fmt=esf, linecde=b8zs,losact=ais,lpbktime=60,aiscien=yes,raicien=yes, nprmen=yes,sprmen=yes:is;
<i>Typical Response</i>	<pre> PULSECOM2 10-04-16 15:19:53 M 1 COMPLD ; PULSECOM2 10-04-16 15:19:53 A 1533 REPT DBCHG "TIME=15-19,DATE=04-16,SOURCE=PULSECOM2,LINKID=, USERID=ROOT,DBCHGSEQ=9:ENT-DS1:T1-1:" ; </pre>

2.6.2 ENT-USER-SECU

Enter User Security – Use this command to create a new user ID and attributes.

NOTE: When communicating with older O3-12D1DN units, Caps Lock or converting a command to all upper case before editing a user account will result in an error. O3-12D1DN units with software version 02.01.01 or later are NOT case sensitive. Verify software version using RTRV-EQPT.

```
ENT-USER-SECU:[<tid>]:<uid>:<ctag>::<pid>,<cid>,<uap[&NoTmout]>:[page=<page>]  
[,pcnd=<pcnd>][,pcnn=<pcnn>][,point=<point>][,uout=<uout>][,lstoi=<lstoi>];
```

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<uid> = user identifier (1 – 10 alphanumeric characters).

<ctag> = correlation tag.

<pid> = password identifier for user login (1 – 10 characters); case-sensitive in older O3-12D1DN units

<cid> = list of channels (such as TCP and UDP) through which a particular user has access.

<uap> = user access privilege level: Admin, User, or ReadOnly (case-sensitive in older O3-12D1DN units). **Admin** can issue all TL1 commands. **User** (default) can issue configuration commands but not security commands (any TL1 command with SECU). **ReadOnly** cannot issue any system or administrative commands but can retrieve system information. Each level can be set for no timeout (**&NoTmout**); see Example 3 for implementation. Otherwise, TL1 sessions time out after 5 minutes of inactivity.

<page> = password age, the amount of time the user is allowed to login without changing the password. After the page period has passed, the system prompts the user to change the password before pcnd or pcnn expiration completely disables the uid. Allowed page input values in days are 0 to 999; default value is 60. Entering 0 will disable this parameter.

<pcnd> = the amount of time the user has to change the password after the page period has passed. Allowed pcnd input values in days are 0 to 999; default value is 7.*

<pcnn> = the number of times the user can log in after the page period has passed. Allowed pcnn input values in days are 0 to 999; default value is 3.*

*Note that pcnd and pcnn are mutually exclusive. If not specified, the system assumes the default of pcnd=7.

<point> = the minimum amount of time the user must wait to reuse an old password; this parameter is ignored.

<uout> = the amount of time the user can go without logging in. At the end of this interval, the uid is disabled. Allowed uout input values in days are 0 to 999; default value is 90. Entering 0 will disable this parameter.

<lstoi> = list of objects or ports (or directory numbers) that a particular user is authorized to access; this parameter is ignored.

Example 1 -- Correct Input and Typical Response for ENT-USER-SECU

<i>Correct Input</i>	ent-user-secu:PULSECOM2:username:1::Username#1, TCP,User:page=999,pcnd=999,point=999,uout=999,lstoi=1;
<i>Typical Response</i>	PULSECOM2 70-01-04 02:38:41 M 1 COMPLD ;

Example 2 -- Incorrect Input and Typical Response for ENT-USER-SECU

<i>Incorrect Input</i>	ent-user-secu:PULSECOM2:username:1::Username#1, TCP,User:page=60,pcnd=7,pcnn=7;
<i>Typical Response</i>	PULSECOM2 70-01-01 00:44:31 M 1 DENY IDNV /*INPUT, DATA NOT VALID*/ ;

Example 3 -- Correct Input and Typical Response for ENT-USER-SECU with No Timeout

<i>Correct Input</i>	ent-user-secu:PULSECOM2:username:1::Username#1, TCP,User&NoTmout:page=999;
<i>Typical Response</i>	PULSECOM2 70-01-04 02:38:41 M 1 COMPLD ;

2.7 Inhibit Function

2.7.1 **INH-LOG-SECU**

Inhibit Log Security – Use this command to inhibit entries into the security log.

INH-LOG-SECU:[<tid>]:[<aid>]:<ctag>::<eventType>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

<eventType> = events for which recording is inhibited: EIUA.

Example -- Correct Input and Typical Response for INH-LOG-SECU

<i>Correct Input</i>	inh-log-secu:PULSECOM2::1::EIUA;
<i>Typical Response</i>	PULSECOM2 09-02-27 09:36:34 M 1 COMPLD ;

2.7.2 **INH-LPBK-T1**

Inhibit Loopback T1 – Use this command to prevent the automatic detection of loopback and entrance into a loopback state requested by codes sent over the T1 line (T1-1 through T1-12, as appropriate).

INH-LPBK-T1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for INH-LPBK-T1

<i>Correct Input</i>	inh-lpbk-t1:PULSECOM2:t1-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-02 11:27:23 M 1 COMPLD ; PULSECOM2 08-06-02 11:27:23 A 3 REPT DBCHG "TIME=11-27,DATE=06-02,SOURCE=PULSECOM2,LINKID=DCC, USERID=,DBCHGSEQ=2:INH-LPBK-DS1:T1-1:" ;

2.7.3 **INH-MSG-ALL**

Inhibit Messages All – Use this command to disable autonomous messages from being sent.

INH-MSG-ALL:[<tid>]::<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for INH-MSG-ALL

<i>Correct Input</i>	inh-msg-all:PULSECOM2::1;
<i>Typical Response</i>	PULSECOM2 08-06-02 12:36:22 M 1 COMPLD ;

2.7.4 **INH-PMREPT-ALL**

Inhibit Performance Monitoring Report All – Use this command to inhibit processing of all performance monitoring reports.

INH-PMREPT-ALL:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier; aid must be blank or ALL.

<ctag> = correlation tag.

Example 1 -- Correct Input and Typical Response for INH-PMREPT-ALL (AID is blank)

<i>Correct Input</i>	inh-pmrept-all:PULSECOM2::1;
<i>Typical Response</i>	<pre> PULSECOM2 09-06-22 09:08:11 M 1 COMPLD ; PULSECOM2 09-06-22 09:08:11 A 1909 REPT DBCHG "TIME=09-08,DATE=06-22,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=70:INH-PM-DS1:T1-6:" ; </pre>

Example 2 -- Correct Input and Typical Response for INH-PMREPT-ALL (AID=ALL)

<i>Correct Input</i>	inh-pmrept-all:PULSECOM2:all:1;
<i>Typical Response</i>	<pre> PULSECOM2 09-06-22 09:10:09 M 1 COMPLD ; PULSECOM2 09-06-22 09:10:09 A 1911 REPT DBCHG "TIME=09-10,DATE=06-22,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=72:INH-PM-DS1:T1-6:" ; </pre>

2.7.5 INH-PMREPT-OC3

Inhibit Performance Monitoring Report OC3 – Use this command to inhibit processing of OC3 performance monitoring reports.

INH-PMREPT-OC3:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for INH-PMREPT-OC3

<i>Correct Input</i>	inh-pmrept-oc3:PULSECOM2:oc3-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-06 11:35:58 M 1 COMPLD ; PULSECOM2 08-06-06 11:35:58 A 7 REPT DBCHG "TIME=11-35,DATE=06-06,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=3:INH-PM-OC3:OC3-1:" ;

2.7.6 **INH-PMREPT-STS1**

Inhibit Performance Monitoring Report STS1 – Use this command to inhibit processing of STS-1 performance monitoring reports.

INH-PMREPT-STS1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier; for example, oc3-1-1 identifies the first STS-1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for INH-PMREPT-STS1

<i>Correct Input</i>	inh-pmrept-sts1:PULSECOM2:oc3-1-1;
<i>Typical Response</i>	PULSECOM2 08-06-06 11:37:33 M 1 COMPLD ; PULSECOM2 08-06-06 11:37:33 A 8 REPT DBCHG "TIME=11-37,DATE=06-06,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=4:INH-PM-STS:OC3-1-1:" ;

2.7.7 **INH-PMREPT-T1**

Inhibit Performance Monitoring Report T1 – Use this command to inhibit processing of T1 performance monitoring reports.

INH-PMREPT-T1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier; for example, t1-8 identifies the eighth T1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for INH-PMREPT-T1

<i>Correct Input</i>	inh-pmrept-t1:PULSECOM2:t1-8:1;
<i>Typical Response</i>	PULSECOM2 08-06-06 11:41:33 M 1 COMPLD ; PULSECOM2 08-06-06 11:41:33 A 10 REPT DBCHG "TIME=11-41,DATE=06-06,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=6:INH-PM-DS1:T1-8:" ;

2.7.8 **INH-USER-SECU**

Inhibit User Security – Use this command to inhibit user ID(s) from establishing a session with the system. Note that the special user ID ROOT cannot be allowed/inhibited.

INH-USER-SECU:[<tid>]:[<aid>]:<ctag>::<uidList>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

<uidList> = user identifier list.

Example 1 -- Correct Input and Typical Response for INH-USER-SECU

<i>Correct Input</i>	inh-user-secu:PULSECOM2::1::username;
<i>Typical Response</i>	PULSECOM2 70-01-01 00:20:13 M 1 COMPLD ;

Example 2 -- Incorrect Input and Typical Response for INH-USER-SECU

<i>Incorrect Input</i>	inh-user-secu:PULSECOM2::1::ROOT;
<i>Typical Response</i>	PULSECOM2 09-06-22 08:54:53 M 1 DENY IDNV /*INPUT, DATA NOT VALID*/ ;

2.8 Initialize Function

2.8.1 **INIT-AO**

Initialize Autonomous Message – Use this command to clear all autonomous messages that are collected in memory for this session. Execution of the command usually follows the Inhibit Command. For example, you may initially want to stop receiving autonomous messages, for which you can execute the Inhibit Autonomous Message Command. Later you may want to view only the autonomous messages from a given time (i.e., you may not need the previously generated autonomous messages). Under such circumstances, you can execute the Init Autonomous Message Command followed by the Allow Autonomous Message Command.

INIT-AO:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for INIT-AO

<i>Correct Input</i>	init-ao:PULSECOM2::1;
<i>Typical Response</i>	PULSECOM2 08-06-02 15:02:13 M 1 COMPLD ;

2.8.2 **INIT-REG-OC3**

Initialize Register OC3 – Use this command to clear the counters associated with a specific OC3 facility.

INIT-REG-OC3:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for INIT-REG-OC3

<i>Correct Input</i>	init-reg-oc3:PULSECOM2:oc3-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-02 15:03:33 M 1 COMPLD ;

2.8.3 **INIT-REG-T1**

Initialize Register T1 – Use this command to clear the counters associated with a specific T1 facility (T1-1 through T1-12, as appropriate).

INIT-REG-T1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-10 identifies the tenth T1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for INIT-REG-T1

<i>Correct Input</i>	init-reg-t1:PULSECOM2:t1-10:1;
<i>Typical Response</i>	PULSECOM2 08-06-02 15:04:36 M 1 COMPLD ;

2.8.4 **INIT-SYS**

Initialize System – Use this command to initialize the system according to given phase. The initialization phase ranges from clearing log files to cold-restart of the system.

CAUTION: Executing this command could be service affecting.

INIT-SYS:[<tid>]::<ctag>::<phase>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<ctag> = correlation tag.

<phase> = 0 to reboot or 4 to reboot and use the default configuration.

Example -- Correct Input and Typical Response for INIT-SYS

<i>Correct Input</i>	init-sys:PULSECOM2::1::0;
<i>Typical Response</i>	PULSECOM2 08-06-03 12:33:44 M 1 COMPLD ; PULSECOM2 08-06-03 12:33:44 A 1 REPT DBCHG "TIME=12-33,DATE=06-03,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=17:INIT-SYS:UNIT:" ;

2.9 Operate Function

2.9.1 **OPR-LPBK-OC3**

Operate Loopback OC3 – Use this command to operate a line OC3 loopback which returns anything entering on the receive signal back on the T1 transmit signal.

CAUTION: Executing this command could be service affecting.

OPR-LPBK-OC3:[<tid>]:[<aid>]:<ctag>::[<lpbktype>];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

<lpbktype> = loopback type to apply: line (line).

Example -- Correct Input and Typical Response for OPR-LPBK-OC3

<i>Correct Input</i>	opr-lpbk-oc3:PULSECOM2:oc3-1:1::line;
<i>Typical Response</i>	<pre> PULSECOM2 09-02-12 15:02:10 M 1 COMPLD ; PULSECOM2 09-02-12 15:02:10 A 4 REPT EVT OC3 "OC3-1:LPBK,SC,,NEND,RCV,,;,,;" ; </pre>

2.9.2 **OPR-LPBK-T1**

Operate Loopback T1 – Use this command to operate a specific type of T1 loopback: A line loopback returns anything entering on the receive signal back on the T1 transmit signal, and a network loopback returns all data received from the SONET optical interface.

CAUTION: Executing this command could be service affecting.

OPR-LPBK-T1:[<tid>]:[<aid>]:<ctag>::[<lpbktype>];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

<lpbktype> = loopback type to apply: line (line) or network (ntwk).

Example 1 -- Correct Input and Typical Response for OPR-LPBK-T1, T1 Line Loopback

<i>Correct Input</i>	opr-lpbk-t1:PULSECOM2:t1-1:1::line;
<i>Typical Response</i>	PULSECOM2 08-06-03 10:02:36 M 1 COMPLD ;

Example 2 -- Correct Input and Typical Response for OPR-LPBK-T1, T1 Network Loopback

<i>Correct Input</i>	opr-lpbk-t1:PULSECOM2:t1-1:1::ntwk;
<i>Typical Response</i>	PULSECOM2 08-06-03 10:08:23 M 1 COMPLD ;

2.10 Release Function

2.10.1 **RLS-LPBK-OC3**

Release Loopback OC3 – Use this command to release an OC3 line loopback.

RLS-LPBK-OC3:[<tid>]:[<aid>]:<ctag>:[<lpbktype>];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

<lpbktype> = loopback type to release: line (line).

Example -- Correct Input and Typical Response for RLS-LPBK-OC3, OC3 Line Loopback

<i>Correct Input</i>	rls-lpbk-oc3:PULSECOM2:oc3-1:1::line;
<i>Typical Response</i>	<pre> PULSECOM2 09-02-12 15:04:13 M 1 COMPLD ; PULSECOM2 09-02-12 15:04:13 A 5 REPT EVT OC3 "OC3-1:LPBK,CL,,NEND,RCV,,,:,,;" ; </pre>

2.10.2 **RLS-LPBK-T1**

Release Loopback T1 – Use this command to release a T1 loopback per the given line type parameter.

RLS-LPBK-T1:[<tid>]:[<aid>]:<ctag>::[<lpbktype>];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

<lpbktype> = loopback type to release: line (line) or network (ntwk).

Example 1 -- Correct Input and Typical Response for RLS-LPBK-T1, T1 Line Loopback

<i>Correct Input</i>	rls-lpbk-t1:PULSECOM2:t1-1:1::line;
<i>Typical Response</i>	PULSECOM2 08-06-03 10:04:41 M 1 COMPLD ;

Example 2 -- Correct Input and Typical Response for RLS-LPBK-T1, T1 Network Loopback

<i>Correct Input</i>	rls-lpbk-t1:PULSECOM2:t1-1:1::ntwk;
<i>Typical Response</i>	PULSECOM2 08-06-03 10:11:08 M 1 COMPLD ;

2.11 Remove Function

2.11.1 **RMV-EQPT**

Remove Equipment – Use this command to place the unit or SFP into a state in which maintenance activities can be performed.

RMV-EQPT:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: unit or sfp-1.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RMV-EQPT

<i>Correct Input</i>	rmv-eqpt:PULSECOM2:sfp-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-03 12:47:55 M 1 COMPLD ;

2.11.2 **RMV-OC3**

Remove OC3 – Use this command to place the OC3 facility into a state in which maintenance activities can be performed.

CAUTION: Executing this command could be service affecting.

RMV-OC3:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RMV-OC3

<i>Correct Input</i>	rmv-oc3:PULSECOM2:oc3-1:1;
<i>Typical Response</i>	PULSECOM2 09-02-12 15:41:25 M 1 COMPLD ; PULSECOM2 09-02-12 15:41:25 A 10 REPT DBCHG "TIME=15-41,DATE=02-12,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=4:RMV-OC3:OC3-1:" ;

2.11.3 **RMV-T1**

Remove T1 – Use this command to place the T1 facility into a state in which maintenance activities can be performed.

CAUTION: Executing this command could be service affecting.

RMV-T1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-2 identifies the second T1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RMV-T1

<i>Correct Input</i>	rmv-t1:PULSECOM2:t1-2:1;
<i>Typical Response</i>	PULSECOM2 08-06-02 14:06:47 M 1 COMPLD ; PULSECOM2 08-06-02 14:06:47 A 21 REPT DBCHG "TIME=14-06,DATE=06-02,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=10:RMV-DS1:T1-2:" ;

2.12 Restore Function

2.12.1 RST-EQPT

Restore Equipment – Use this command to return the unit or SFP to an on-line (in-service) state.

RST-EQPT:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: unit or sfp-1.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RST-EQPT

<i>Correct Input</i>	rst-eqpt:PULSECOM2:sfp-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-03 12:47:55 M 1 COMPLD ;

2.12.2 RST-OC3

Restore OC3 – Use this command to return the OC3 facility to an on-line (in-service) state.

RST-OC3:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RST-OC3

<i>Correct Input</i>	rst-oc3:PULSECOM2:oc3-1:1;
<i>Typical Response</i>	PULSECOM2 09-02-12 15:42:54 M 1 COMPLD ; PULSECOM2 09-02-12 15:42:54 A 11 REPT DBCHG "TIME=15-42,DATE=02-12,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=5:RST-OC3:OC3-1:" ;

2.12.3 RST-T1

Restore T1 – Use this command to return the T1 facility to an on-line (in-service) state.

RST-T1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RST-T1

<i>Correct Input</i>	rst-t1:PULSECOM2:t1-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-02 11:59:18 M 1 COMPLD ; PULSECOM2 08-06-02 11:59:18 A 10 REPT DBCHG "TIME=11-59,DATE=06-02,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=4:RST-DS1:T1-1:" ;

2.13 Retrieve Function

2.13.1 RTRV-ALM-ALL

Retrieve Alarms All – Use this command to retrieve all current alarms, if any, reported within the unit.

RTRV-ALM-ALL:[<tid>]:[<aid>]:<ctag>:[ntfncde],[condtype],[srveff],[locn],[dirn];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) or PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies: all.

<ctag> = correlation tag.

ntfncde = notification code that is generated on the network element when a threshold is cleared or exceeded: critical (CR), major (MJ), or minor (MN).

condtype = alarm condition type: loss of signal (LOS), loss of frame (LOF), alarm indication signal (AIS), signal degrade (SD), or high temperature (HITEMP).

srveff = effect on service caused by the alarm condition: service affecting (SA) or not service affecting (NSA).

locn = location of the alarm condition (refers to the entity identified by the AID): near end (NEND) refers to alarm conditions occurring at the identified entity, and far end (FEND) refers to alarm conditions at a distant entity that is connected to the identified entity.

dirn = direction of the alarm condition relative to the entity identified by the AID: receive (RCV) or transmit (XMT).

Example 1 -- Correct Input and Typical Response for RTRV-ALM-ALL, No Alarms Found

<i>Correct Input</i>	rtrv-alm-all:PULSECOM2:all:1::CR,LOS;
<i>Typical Response</i>	PULSECOM2 70-01-01 17:44:46 M 1 COMPLD ;

Example 2 -- Correct Input and Typical Response for RTRV-ALM-ALL, All Alarms Found

<i>Correct Input</i>	rtrv-alm-all:PULSECOM2:all:1::NEND,RCV;
<i>Typical Response</i>	PULSECOM2 09-02-24 12:34:28 M 1 COMPLD "T1-1,T1:MJ,LOF,SA,03-24,10-23,NEND,RCV;,,,;" ;

2.13.2 RTRV-ALM-EQPT

Retrieve Alarms Equipment – Use this command to retrieve current alarms, if any, against the unit or SFP.

RTRV-ALM-EQPT:[<tid>]:[<aid>]:<ctag>::[ntfncde],[condtype],[srveff],[locn],[dirn];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: unit, sfp-1, or all.

<ctag> = correlation tag.

ntfncde = notification code that is generated on the network element when a threshold is cleared or exceeded: critical (CR), major (MJ), or minor (MN).

condtype = alarm condition type: loss of signal (LOS), loss of frame (LOF), alarm indication signal (AIS), or high temperature (HITEMP).

srveff = effect on service caused by the alarm condition: service affecting (SA) or not service affecting (NSA).

locn = location of the alarm condition (refers to the entity identified by the AID): near end (NEND) refers to alarm conditions occurring at the identified entity, and far end (FEND) refers to alarm conditions at a distant entity that is connected to the identified entity.

dirn = direction of the alarm condition relative to the entity identified by the AID: receive (RCV) or transmit (XMT).

Example 1 -- Correct Input and Typical Response for RTRV-ALM-EQPT, No Alarms Found

<i>Correct Input</i>	rtrv-alm-eqpt:PULSECOM2:all:1::MN,LOS,NSA,NEND,RCV;
<i>Typical Response</i>	PULSECOM2 09-02-23 16:40:01 M 1 COMPLD ;

**Example 2 -- Correct Input and Typical Response for RTRV-ALM-EQPT,
 All Equipment Alarms Found**

<i>Correct Input</i>	rtrv-alm-eqpt:PULSECOM2:all:1;
<i>Typical Response</i>	PULSECOM2 08-05-31 22:58:50 M 1 RTRV ; PULSECOM2 08-05-31 22:58:50 M 1 COMPLD "SFP-1,EQPT:MN,SFP_NON_PULSECOM,NSA,,,NEND,RCV,:,,:," ;

2.13.3 RTRV-ALM-OC3

Retrieve Alarms OC3 – Use this command to retrieve current alarms, if any, against the requested OC3 facility.

RTRV-ALM-OC3:[<tid>]:[<aid>]:<ctag>::[ntfncde],[condtype],[srveff],[locn],[dirn];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

ntfncde = notification code that is generated on the network element when a threshold is cleared or exceeded: critical (CR), major (MJ), or minor (MN).

condtype = alarm condition type: loss of signal (LOS), loss of frame (LOF), alarm indication signal (AIS), or signal degrade (SD).

srveff = effect on service caused by the alarm condition: service affecting (SA) or not service affecting (NSA).

locn = location of the alarm condition (refers to the entity identified by the AID): near end (NEND) refers to alarm conditions occurring at the identified entity, and far end (FEND) refers to alarm conditions at a distant entity that is connected to the identified entity.

dirn = direction of the alarm condition relative to the entity identified by the AID: receive (RCV) or transmit (XMT).

Example -- Correct Input and Typical Response for RTRV-ALM-OC3, No Alarms Found

<i>Correct Input</i>	rtrv-alm-oc3:PULSECOM2:oc3-1:1::MJ,AIS,SA,NEND,RCV;
<i>Typical Response</i>	PULSECOM2 09-02-24 10:04:55 M 1 COMPLD ;

2.13.4 RTRV-ALM-T1

Retrieve Alarms T1 – Use this command to retrieve current alarms, if any, against the requested T1 facility (T1-1 through T1-12, as appropriate).

RTRV-ALM-T1:[<tid>]:[<aid>]:<ctag>::[ntfcncde],[condtype],[srveff],[locn],[dirn];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies the object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit, or all for all T1s in service.

<ctag> = correlation tag.

ntfcncde = notification code that is generated on the network element when a threshold is cleared or exceeded: critical (CR), major (MJ), or minor (MN).

condtype = alarm condition type: loss of signal (LOS), loss of frame (LOF), alarm indication signal (AIS), or bipolar violation (BPV).

srveff = effect on service caused by the alarm condition: service affecting (SA) or not service affecting (NSA).

locn = location of the alarm condition (refers to the entity identified by the AID): near end (NEND) refers to alarm conditions occurring at the identified entity, and far end (FEND) refers to alarm conditions at a distant entity that is connected to the identified entity.

dirn = direction of the alarm condition relative to the entity identified by the AID: receive (RCV) or transmit (XMT).

Example 1 -- Correct Input and Typical Response for RTRV-ALM-T1, T1-1 Alarms Found

<i>Correct Input</i>	rtrv-alm-t1:PULSECOM2:t1-1:1::MJ,LOF,SA,NEND,RCV;
<i>Typical Response</i>	PULSECOM2 09-02-24 10:27:28 M 1 COMPLD ; "T1-1,T1:MJ,LOF,SA,03-24,10-23,NEND,RCV,;,;,;" ;

Example 2 -- Correct Input and Typical Response for RTRV-ALM-T1, No T1 Alarms Found

<i>Correct Input</i>	rtrv-alm-t1:PULSECOM2:all:1;
<i>Typical Response</i>	PULSECOM2 08-05-31 23:47:39 M 1 RTRV ; PULSECOM2 08-05-31 23:47:39 M 1 COMPLD ;

2.13.5 RTRV-AO

Retrieve Autonomous Message – Use this command to retrieve a copy of a queued autonomous message or a missing autonomous message. Queued autonomous messages are autonomous messages that cannot be sent to the OSs because of unavailability of the OS/NE communication link. The second purpose of the command is to allow the OS to retrieve the suspected missing autonomous messages. Message retrievals should be limited to 100. If more than 100 messages are requested, the excessive data will prompt a “Data Loss” response; in this case, quit the current TL-1 session and restart.

**RTRV-AO:[<tid>]:[<aid>]:<ctag>::<commonblock>:[atagseq=<atagseq>]
 [,msgtype=<msgtype>][,dbchgseq=<dbchgseq>];**

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

<commonblock> = ignored.

<atagseq> = autonomous sequence numbers within the range 0 to 9999 that are to be retrieved. Multiple sequence numbers can be specified by separating them with “&” (e.g., 1&5&7 selects sequence numbers 1, 5, and 7). A range can also be specified with “&&” (e.g., 5&&10 selects sequence numbers 5 through 10, inclusive).

<msgtype> = type of messages to retrieve: DBCHG, ALM, or EVT. If message type is not specified, all are reported.

<dbchgseq> = ignored.

Example -- Correct Input and Typical Response for RTRV-AO

<i>Correct Input</i>	rtrv-ao:PULSECOM2::1:::1,ALM,1;
<i>Typical Response</i>	PULSECOM2 09-02-24 12:29:19 M 1 COMPLD ;

2.13.6 RTRV-ATTR-SECULOG

Retrieve Attributes Security Log – Use this command to retrieve attributes from the security log.

RTRV-ATTR-SECULOG:[<tid>]:[<uid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<uid> = user identifier (1 – 10 alphanumeric characters); case-sensitive in older O3-12D1DN units; factory default = ROOT.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-ATTR-SECULOG

<i>Correct Input</i>	rtrv-attr-seculog:PULSECOM2:ROOT:1;
<i>Typical Response</i>	PULSECOM2 09-02-24 12:40:36 M 1 COMPLD ; "ROOT:64,NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution.,EIUA EURA EUSP ECSP ERSP ESCC ECMR" ;

2.13.7 **RTRV-AUDIT-SECULOG**

Retrieve Audit Security Log – Use this command to retrieve records from the security log.

RTRV-AUDIT-SECULOG:[<tid>]:[<aid>]:<ctag>::[cid=<cid>][,rsc=<rsc>][,uid=<uid>];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

<cid> = channel ID: DCC for Remote **or** CRAFT for CO.

<rsc> = resource; this parameter is ignored.

<uid> = user identifier (1 – 10 alphanumeric characters).

Example -- Correct Input and Typical Response for RTRV-AUDIT-SECULOG

<i>Correct Input</i>	rtrv-audit-seculog:PULSECOM2::1::cid=DCC,,uid=username;
<i>Typical Response</i>	PULSECOM2 09-06-22 09:46:37 M 1 COMPLD ; ":22-06-2009 08-52-57:LOGEVENT=EIUA, STATUS=NO,UID=username,CID=DCC" ;

2.13.8 RTRV-CMD-SECU

Retrieve Command Security – Use this command to retrieve the security parameters associated with any command.

RTRV-CMD-SECU:[<tid>]:<command>:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<command> = command verb and verb modifier(s).

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-CMD-SECU

<i>Correct Input</i>	rtrv-cmd-secu:PULSECOM2:rtrv-t1:1;
<i>Typical Response</i>	PULSECOM2 70-01-01 00:54:49 M 1 COMPLD ; "rtrv-t1:Admin&User&ReadOnly" ;

2.13.9 RTRV-COND-ALL

Retrieve Conditions All – Use this command to retrieve all current standing conditions.

RTRV-COND-ALL:[<tid>]:<aid>:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: all.

<ctag> = correlation tag.

Example 1 -- Correct Input and Typical Response for RTRV-COND-ALL, No Alarms Found

<i>Correct Input</i>	rtrv-cond-all:PULSECOM2:all:1;
<i>Typical Response</i>	PULSECOM2 70-01-01 01:01:05 M 1 COMPLD ;

Example 2 -- Correct Input and Typical Response for RTRV-COND-ALL, Alarms Found

<i>Correct Input</i>	rtrv-cond-all:PULSECOM2:all:1;
<i>Typical Response</i>	PULSECOM2 70-01-01 01:02:03 M 1 COMPLD ; "T1-1,T1:MJ,LOS,SA,,,NEND,RCV,," ;

2.13.10 RTRV-COND-EQPT

Retrieve Conditions Equipment – Use this command to retrieve current equipment alarms and conditions.

RTRV-COND-EQPT:[<tid>]:<aid>:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: unit or sfp-1.

<ctag> = correlation tag.

Example 1 -- Correct Input and Typical Response for RTRV-COND-EQPT, Unit

<i>Correct Input</i>	rtrv-cond-eqpt:PULSECOM2:unit:1;
<i>Typical Response</i>	PULSECOM2 09-02-24 13:24:44 M 1 COMPLD ;

Example 2 -- Correct Input and Typical Response for RTRV-COND-EQPT, SFP-1

<i>Correct Input</i>	rtrv-cond-eqpt:PULSECOM2:sfp-1:1;
<i>Typical Response</i>	PULSECOM2 09-02-24 13:25:18 M 1 COMPLD ;

2.13.11 RTRV-COND-OC3

Retrieve Conditions OC3 – Use this command to retrieve current OC3 alarms and conditions.

RTRV-COND-OC3:[<tid>]:[<aid>]:<ctag>::[typereq],[locn],[dirn];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

typereq = type of condition or state to be retrieved: threshold crossing (TC).

locn = location of the information desired (refers to the entity identified by the AID): near end (NEND) refers to conditions at the identified entity, and far end (FEND) refers to conditions at a distant entity that is connected to the identified entity.

dirn = direction of the specified condition relative to the entity identified by the AID: receive (RCV) or transmit (XMT).

Example -- Correct Input and Typical Response for RTRV-COND-OC3

<i>Correct Input</i>	rtrv-cond-oc3:PULSECOM2:oc3-1:1::TC,NEND,RCV;
<i>Typical Response</i>	PULSECOM2 09-02-24 13:41:10 M 1 COMPLD ; "OC3-1,OC3:NA,AIS,NSA,,,,," ;

2.13.12 RTRV-COND-STS1

Retrieve Conditions STS1 – Use this command to retrieve current STS-1 alarms and conditions.

RTRV-COND-STS1:<tid>[:<aid>]:<ctag>::[typereq],[locn],[dirn];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, oc3-1-1 identifies the first STS-1 facility on this unit.

<ctag> = correlation tag.

typereq = type of condition or state to be retrieved: threshold crossing (TC).

locn = location of the information desired (refers to the entity identified by the AID): near end (NEND) refers to conditions at the identified entity, and far end (FEND) refers to conditions at a distant entity that is connected to the identified entity.

dirn = direction of the specified condition relative to the entity identified by the AID: receive (RCV) or transmit (XMT).

Example -- Correct Input and Typical Response for RTRV-COND-STS1

<i>Correct Input</i>	rtrv-cond-sts1:PULSECOM2:oc3-1-1:1::TC,NEND,RCV;
<i>Typical Response</i>	PULSECOM2 09-03-01 13:22:20 M 1 COMPLD ; "OC3-1-1,STS1:NA,INHMSG-PM,NSA,,,,," ;

2.13.13 RTRV-COND-T1

Retrieve Conditions T1 – Use this command to retrieve current T1 alarms and conditions.

RTRV-COND-T1:[<tid>]:[<aid>]:<ctag>::[typereq],[locn],[dirn];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

typereq = type of condition or state to be retrieved: threshold crossing (TC).

locn = location of the information desired (refers to the entity identified by the AID): near end (NEND) refers to conditions at the identified entity, and far end (FEND) refers to conditions at a distant entity that is connected to the identified entity.

dirn = direction of the specified condition relative to the entity identified by the AID: receive (RCV) or transmit (XMT).

Example -- Correct Input and Typical Response for RTRV-COND-T1

<i>Correct Input</i>	rtrv-cond-t1:PULSECOM2:t1-1:1::TC,NEND,RCV;
<i>Typical Response</i>	PULSECOM2 09-02-24 14:10:36 M 1 COMPLD ; "T1-1,T1:MJ,LOF,SA,,,NEND,RCV,," ;

2.13.14 RTRV-CRS-T1

Retrieve Cross-Connects T1 – Use this command to retrieve T1 cross-connect status.

RTRV-CRS-T1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-CRS-T1

<i>Correct Input</i>	rtrv-crs-t1:PULSECOM2:t1-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-04 09:15:29 M 1 COMPLD ; "T1-1,OC3-1-1-1-1:2Way,T1::IS-NR" ;

2.13.15 RTRV-CRS-VT1

Retrieve Cross-Connects VT1 – Use this command to retrieve the cross-connect status of the VT1. The VT1 line number AID **must** be given as the AID for this command.

RTRV-CRS-VT1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier in the format oc3-1-1-(1 – 3)-(1 – 4); for example, oc3-1-1-1 identifies VT1 within OC3 line 1, STS 1, VT group number 1, and VT number 1 on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-CRS-VT1

<i>Correct Input</i>	rtrv-crs-vt1:PULSECOM2:oc3-1-1-1-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-04 09:16:40 M 1 COMPLD ; "OC3-1-1-1-1,T1-1:2Way,VT1::IS-NR" ;

2.13.16 RTRV-DFLT-SECU

Retrieve Defaults Security – Use this command to retrieve the security defaults.

RTRV-DFLT-SECU:[<tid>]:<aid>:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: all.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-DFLT-SECU

<i>Correct Input</i>	rtrv-dflt-secu:PULSECOM2:all:1;
<i>Typical Response</i>	PULSECOM2 09-02-03 17:18:06 M 1 RTRV ; "AID:60,7,3,20,,,,90" ;

2.13.17 RTRV-EQPT

Retrieve Equipment – Use this command to retrieve status of unit and/or SFP.
 Use command to retrieve redundancy configurations and/or inventory information for the specified module.

RTRV-EQPT:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: unit, sfp-1, or all.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-EQPT

<i>Correct Input</i>	rtrv-eqpt:PULSECOM2:all:1;
<i>Typical Response</i>	<pre> PULSECOM2 08-06-04 09:18:51 M 1 RTRV "UNIT:CLEI_CODE=ÿÿÿÿSERIAL NUM=ÿÿÿÿÿÿÿÿ,SW VERSION=1.0, NAME=O3-12D1DN,VENDOR NAME=PULSECOM, ROLE=MUX-REMOTE:IS-NR" ; PULSECOM2 08-06-04 09:18:51 M 1 COMPLD "SFP-1:CLEI_CODE=SOOTAGTMAA,NAME=SFP-1,VENDOR NAME=PULSECOM,PARTNUM=,IR,15,1310 nm:IS-NR" ; </pre>

2.13.18 RTRV-HDR

Retrieve Header – Use this command to request that a network element reply with a normal response indicating COMPLD (ping).

RTRV-HDR:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-HDR

<i>Correct Input</i>	rtrv-hdr:PULSECOM2::1;
<i>Typical Response</i>	PULSECOM2 08-06-02 15:50:40 M 1 COMPLD ;

2.13.19 RTRV-MGMT

Retrieve Management – Use this command to retrieve MGMT settings: IP address, netmask, default gateway, Peer TID, Echo setting (Y- O3-12D1DN will echo received TL1 commands; N – no echo of TL1 commands), Configuration (Y – Bookend; N-Single-ended)

RTRV-MGMT::**<ctag>**;

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-MGMT

<i>Correct Input</i>	rtrv-mgmt::1;
<i>Typical Response</i>	PULSECOM 08-06-02 15:50:40 M 1 COMPLD "192-168-1-45,255-255-255-0,0-0-0-0,PULSECOM2,N,Y" ;

2.13.20 RTRV-NETTYPE

Retrieve Network Element Type – Use this command to retrieve the NE type.

RTRV-NETTYPE:[<tid>]::<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-NETTYPE

<i>Correct Input</i>	rtrv-nettype:PULSECOM2::1;
<i>Typical Response</i>	PULSECOM2 70-01-01 04:22:08 M 1 COMPLD ; "PULSECOM,O3-12D1DN,MUX-REMOTE,1.0" ;

2.13.21 RTRV-NLP

Retrieve Network Layer Protocol – Use this command to retrieve the DCC channel’s layer 3 status and configuration.

RTRV-NLP:[<tid>]:<aid>:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: dcc-1 identifies the data communications channel on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-NLP

<i>Correct Input</i>	rtrv-nlp:PULSECOM2:dcc-1:1;
<i>Typical Response</i>	PULSECOM2 09-02-24 14:17:13 M 1 COMPLD ; "39840F8000000000000000000000,0060BD1A2B3C,50,12,no,ES" ;

2.13.22 RTRV-OC3

Retrieve OC3 – Use this command to retrieve the OC3 facility’s status.

RTRV-OC3:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-OC3

<i>Correct Input</i>	rtrv-oc3:PULSECOM2:oc3-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-04 09:20:33 M 1 COMPLD ; "OC3-1:CLEI=SOOTAGTMAA,LOSACT=DS1_TX_AIS,FREQ=NV, LOSSB=LR,LINECDE=Long Range,DCC=Y:IS-NR" ;

2.13.23 RTRV-PM-ALL

Retrieve Performance Monitoring All – Use this command to retrieve all PM for the specified date and time.

RTRV-PM-ALL:[<tid>]:[<aid>]:<ctag>:[montype],[monlev],[locn],[dirn],[tmper],[mondatt],[montm];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: all.

<ctag> = correlation tag.

montype = type of PM being displayed [for example, unavailable seconds-path (uas-p)].

monlev = monitoring level in reference to the PM [for example, day before (1-up)].

locn = location: near end (nend) or far end (fend).

dirn = direction: receive (rcv) or transmit (xmt).

tmper = time period of PM parameter: 15-min or 1-day.

mondatt = date of beginning of time period: month-date (MM-DD).

montm = beginning time of time period: hour-minute (hh-mm).

Example -- Correct Input and Typical Response for RTRV-PM-ALL

<i>Correct Input</i>	rtrv-pm-all:PULSECOM2:all:1::uas-p,1-up,nend,rcv,15-min,02-24,15-00;
<i>Typical Response</i>	PULSECOM2 09-02-24 15:37:31 M 1 COMPLD ; "OC3-1-1,STS1:UAS-P,900,COMPL,NEND,RCV,15-MIN,02-24,15-00" "T1-1,T1:UAS-P,900,COMPL,NEND,RCV,15-MIN,02-24,15-00" ;

2.13.24 RTRV-PM-OC3

Retrieve Performance Monitoring OC3 – Use this command to retrieve OC3 PM for the specified date and time.

RTRV-PM-OC3:[<tid>]:[<aid>]:<ctag>::[montype],[monlev],[locn],[dirn],[tmper],[mondatt],[montm];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

montype = type of PM being displayed [for example, unavailable seconds-path (uas-p)].

monlev = monitoring level in reference to the PM [for example, day before (1-up)].

locn = location: near end (nend) or far end (fend).

dirn = direction: receive (rcv) or transmit (xmt).

tmper = time period of PM parameter: 15-min or 1-day.

mondatt = date of time period beginning: month-date (MM-DD).

montm = beginning time of time period: hour-minute (hh-mm).

Example -- Correct Input and Typical Response for RTRV-PM-OC3

<i>Correct Input</i>	rtrv-pm-oc3:PULSECOM2:oc3-1:1::,1-up,nend,,15-min,06-06,11-00;
<i>Typical Response</i>	<pre> PULSECOM2 08-06-06 11:14:10 M 1 COMPLD ; "OC3-1,OC3:CV-S,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1,OC3:SEFS,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1,OC3:ES-S,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1,OC3:SES-S,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1,OC3:ES-L,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1,OC3:CV-L,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1,OC3:SES-L,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1,OC3:UAS-L,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1,OC3:FC-L,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" ; </pre>

2.13.25 RTRV-PM-STS1

Retrieve Performance Monitoring STS1 – Use this command to retrieve STS-1 PM for the specified date and time.

RTRV-PM-STS1:[<tid>]:[<aid>]:<ctag>::[montype],[monlev],[locn],[dirn],[tmper],[mondatt],[montm];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, oc3-1-1 identifies the first STS-1 facility on this unit.

<ctag> = correlation tag.

montype = type of PM being displayed [for example, unavailable seconds-path (uas-p)].

monlev = monitoring level in reference to the PM [for example, day before (1-up)].

locn = location: near end (nend) or far end (fend).

dirn = direction: receive (rcv) or transmit (xmt).

tmper = time period of PM parameter: 15-min or 1-day.

mondatt = date of time period beginning: month-date (MM-DD).

montm = beginning time of time period: hour-minute (hh-mm).

Example -- Correct Input and Typical Response for RTRV-PM-STS1

<i>Correct Input</i>	rtrv-pm-sts1:PULSECOM2:oc3-1-1:1::,1-up,nend,,15-min,06-06,11-00;
<i>Typical Response</i>	PULSECOM2 08-06-06 11:23:37 M 1 COMPLD ; "OC3-1-1,STS1:CV-P,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1-1,STS1:ES-P,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1-1,STS1:SES-P,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1-1,STS1:UAS-P,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" "OC3-1-1,STS1:FC-P,0,COMPL,NEND,RCV,15-MIN,06-06,11-00" ;

2.13.26 RTRV-PM-T1

Retrieve Performance Monitoring T1 – Use this command to retrieve T1 PM for the specified date and time.

RTRV-PM-T1:[<tid>]:[<aid>]:<ctag>::[montype],[monlev],[locn],[dirn],[tmper],[mondatt],[montm];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

montype = type of PM being displayed [for example, unavailable seconds-path (uas-p)].

monlev = monitoring level in reference to the PM [for example, day before (1-up)].

locn = location: near end (nend) or far end (fend).

dirn = direction: receive (rcv) or transmit (xmt).

tmper = time period of PM parameter: 15-min or 1-day.

mondatt = date of time period beginning: month-date (MM-DD).

montm = beginning time of time period: hour-minute (hh-mm).

Example 1 -- Correct Input and Typical Response for RTRV-PM-T1

<i>Correct Input</i>	rtrv-pm-t1:PULSECOM2:t1-1:1::,,,15-min,06-04,09-00;
<i>Typical Response</i>	<pre> PULSECOM2 08-06-04 09:21:50 M 1 COMPLD ; "T1-1,T1:CV-L,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" "T1-1,T1:ES-L,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" "T1-1,T1:SES-L,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" "T1-1,T1:LOSS-L,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" "T1-1,T1:CV-P,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" "T1-1,T1:ES-P,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" "T1-1,T1:SES-P,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" "T1-1,T1:AISS-P,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" "T1-1,T1:SAS-P,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" "T1-1,T1:UAS-P,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" "T1-1,T1:FC-P,0,COMPL,NEND,RCV,15-MIN,06-04,09-00" ; </pre>

Example 2 -- Correct Input and Typical Response for RTRV-PM-T1

<i>Correct Input</i>	rtrv-pm-t1:PULSECOM2:t1-1:1::,1-up,nend,,15-min,06-04,14-15;
<i>Typical Response</i>	PULSECOM2 08-06-04 14:19:02 M 1 COMPLD ; "T1-1,T1:CV-L,0,ADJ,NEND,RCV,15-MIN,06-04,14-15" "T1-1,T1:ES-L,3,ADJ,NEND,RCV,15-MIN,06-04,14-15" "T1-1,T1:SES-L,3,ADJ,NEND,RCV,15-MIN,06-04,14-15" "T1-1,T1:LOSS-L,3,ADJ,NEND,RCV,15-MIN,06-04,14-15" "T1-1,T1:CV-P,0,ADJ,NEND,RCV,15-MIN,06-04,14-15" "T1-1,T1:ES-P,3,ADJ,NEND,RCV,15-MIN,06-04,14-15" "T1-1,T1:SES-P,3,ADJ,NEND,RCV,15-MIN,06-04,14-15" "T1-1,T1:AISS-P,0,ADJ,NEND,RCV,15-MIN,06-04,14-15" "T1-1,T1:SAS-P,0,ADJ,NEND,RCV,15-MIN,06-04,14-15" "T1-1,T1:UAS-P,0,ADJ,NEND,RCV,15-MIN,06-04,14-15" "T1-1,T1:FC-P,1,ADJ,NEND,RCV,15-MIN,06-04,14-15" ;

2.13.27 RTRV-PMSCHED-ALL

Retrieve Performance Monitoring Schedules All – Use this command to retrieve all PM schedules.

RTRV-PMSCHED-ALL:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: all.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-PMSCHED-ALL

<i>Correct Input</i>	rtrv-pmsched-all:PULSECOM2:all:1;
<i>Typical Response</i>	PULSECOM2 70-01-01 00:18:40 M 1 COMPLD ; "T1-1,T1:15-MIN,08-25,07-55,NEND,,15-MIN,ALW" ;

2.13.28 RTRV-SDCC

Retrieve Section Data Communications Channel – Use this command to retrieve the DCC channel’s layer 2 status and configuration.

RTRV-SDCC:[<tid>]:<aid>:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies: dcc-1 identifies the data communications channel on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-SDCC

<i>Correct Input</i>	rtrv-sdcc:PULSECOM2:dcc-1:1;
<i>Typical Response</i>	PULSECOM2 09-02-25 09:43:46 M 1 COMPLD ; "MODE=AITs,ROLE=user,SAPI=62,TEI=0,K=7,N200=3,N201=512, T200=200,T203=10,IS-NR" ;

2.13.29 RTRV-STATUS

Retrieve Status – Use this command to retrieve status.

RTRV-STATUS:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; this parameter is ignored.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-STATUS

<i>Correct Input</i>	rtrv-status:PULSECOM2:1:3;
<i>Typical Response</i>	PULSECOM2 08-06-04 11:16:28 M 3 COMPLD ; "TL1_NE:DCC,ROOT&ROOT," ;

2.13.30 RTRV-ST51

Retrieve Synchronous Transport Signal Level 1 – Use this command to retrieve the STS-1 status.

RTRV-ST51:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, oc3-1-1 identifies the first STS-1 in use on this facility on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-ST51

<i>Correct Input</i>	rtrv-sts1:PULSECOM2:oc3-1-1:1;
<i>Typical Response</i>	PULSECOM2 08-06-04 09:24:03 M 1 COMPLD ; "OC3-1-1:IS-NR" ;

2.13.31 RTRV-T1

Retrieve T1 – Use this command to retrieve the T1 facility’s status.

RTRV-T1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) or PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, t1-6 identifies the sixth T1 facility on this unit.

<ctag> = correlation tag.

Example 1 -- Correct Input and Typical Response for RTRV-T1: O3-12D1DN Set as CO

<i>Correct Input</i>	rtrv-t1:PULSECOM:t1-6:1;
<i>Typical Response</i>	PULSECOM 08-06-04 09:24:45 M 1 COMPLD ; "T1-6:NAME=CIRCUITNAME,LINECDE=B8ZS,FMT=ESF, EQLZ=133 ft,LPBKTO=60 mins,LOSACT=AIS:IS-NR" ;

Example 2 -- Correct Input and Typical Response for RTRV-T1: O3-12D1DN Set as Remote

<i>Correct Input</i>	rtrv-t1:PULSECOM2:t1-1:1;
<i>Typical Response</i>	PULSECOM2 10-04-16 15:03:17 M 1 COMPLD ; "T1-1:NAME=CIRCUITNAME,LINECDE=B8ZS,FMT=ESF, EQLZ=133 ft,LPBKTO=60 mins,LOSACT=AIS,LPBKDWNAIS=NO, AISCIEN=YES,RAICIEN=YES,NPRMEN=YES,SPRMEN=YES:IS-NR" ;

2.13.32 RTRV-TCA-OC3

Retrieve Threshold Crossing Alert OC3 – Use this command to retrieve the OC3 TCA history from the internal database.

RTRV-TCA-OC3:[<tid>]:[<aid>]:<ctag>::[montype],[locn],[dirn],[tmper],[mondatt];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

montype = type of PM being displayed: all.

locn = location: near end (nend) or far end (fend).

dirn = direction: receive (rcv) or transmit (xmt).

tmper: time period: 1-day or 15-min.

mondatt = date of beginning of **1-day only** time period: month-date (MM-DD).

Example 1 -- Correct Input and Typical Response for RTRV-TCA-OC3, Time Period 1 Day

<i>Correct Input</i>	rtrv-tca-oc3:PULSECOM2:oc3-1:1::all,nend,rcv,1-day,02-25;
<i>Typical Response</i>	PULSECOM2 09-02-25 13:28:45 M 1 COMPLD ; "OC3-1,OC3:T-UAS-L,02-25,13-28,NEND,RCV,1-DAY" "OC3-1,OC3:T-SEFS,02-25,13-28,NEND,RCV,1-DAY" "OC3-1,OC3:T-ES-S,02-25,13-28,NEND,RCV,1-DAY" "OC3-1,OC3:T-SES-S,02-25,13-28,NEND,RCV,1-DAY" ;

Example 2 -- Correct Input and Typical Response for RTRV-TCA-OC3, Time Period 15 Minutes

<i>Correct Input</i>	rtrv-tca-oc3:PULSECOM2:oc3-1:1::all,nend,rcv,15-min;
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<i>Typical Response</i>	PULSECOM2 09-02-25 13:26:50 M 1 COMPLD ;
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2.13.33 RTRV-TCA-T1

Retrieve Threshold Crossing Alert T1 – Use this command to retrieve the T1 TCA history from the internal database.

RTRV-TCA-T1:[<tid>]:[<aid>]:<ctag>::[montype],[locn],[dirn],[tmper],[mondatt];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

montype = type of PM being displayed: all.

locn = location: near end (nend) or far end (fend).

dirn = direction: receive (rcv) or transmit (xmt).

tmper: time period: 1-day or 15-min.

mondatt = date of beginning of **1-day only** time period: month-date (MM-DD).

Example 1 -- Correct Input and Typical Response for RTRV-TCA-T1, Time Period 15 Minutes

<i>Correct Input</i>	rtrv-tca-t1:PULSECOM2:t1-1:1::,,,15-min;
<i>Typical Response</i>	PULSECOM2 08-06-04 13:26:14 M 1 COMPLD ;

Example 2 -- Correct Input and Typical Response for RTRV-TCA-T1, Time Period 1 Day

<i>Correct Input</i>	rtrv-tca-t1:PULSECOM2:t1-1:1::,,,1-day,06-04;
----------------------	--

<i>Typical Response</i>	PULSECOM2 08-06-04 13:29:56 M 1 COMPLD ; "T1-1,T1:T-SES-L,06-04,13-29,NEND,RCV,1-DAY" "T1-1,T1:T-UAS-P,06-04,13-29,NEND,RCV,1-DAY" ;
-------------------------	---

2.13.34 RTRV-USER

Retrieve User – Use this command to retrieve the security attributes of the user who is currently logged in.

RTRV-USER:[<tid>]:<uid>:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<uid> = user identifier (1 – 10 alphanumeric characters); case-sensitive in older O3-12D1DN units; factory default = ROOT.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-USER

<i>Correct Input</i>	rtrv-user:PULSECOM2:ROOT:1;
<i>Typical Response</i>	PULSECOM2 08-06-04 09:30:29 M 1 COMPLD ; "ROOT:TCP&CRAFT,1:PAGE=60,PCND=7,PCNN=0,POINT=20, UOUT=14124,LSTOI=1" ;

2.13.35 RTRV-USER-SECU

Retrieve User Security – Use this administrative command to retrieve security attributes of any user from the system.

RTRV-USER-SECU:[<tid>]:[<uid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<uid> = user identifier (1 – 10 alphanumeric characters); no uid will display all users created; case-sensitive in older O3-12D1DN units; factory default = ROOT.

<ctag> = correlation tag.

Example 1 -- Correct Input and Typical Response for RTRV-USER-SECU, Default User

<i>Correct Input</i>	rtrv-user-secu:PULSECOM2:ROOT:1;
<i>Typical Response</i>	<pre>PULSECOM2 08-06-04 09:33:09 M 1 COMPLD ; "ROOT:TCP&CRAFT,1:PAGE=60,PCND=7,PCNN=0,POINT=20, UOUT=14124,LSTOI=1" ;</pre>

Example 2 -- Correct Input and Typical Response for RTRV-USER-SECU, All Users

<i>Correct Input</i>	rtrv-user-secu:PULSECOM2::1;
<i>Typical Response</i>	<pre>PULSECOM2 09-02-03 18:36:03 M 1 COMPLD ; "ROOT:TCP&CRAFT,1:PAGE=60,PCND=7,PCNN=0,POINT=20, UOUT=14124,LSTOI=1" "username:UDP,user:PAGE=60,PCND=7,PCNN=0,POINT=20, UOUT=90,LSTOI=1" ;</pre>

2.13.36 RTRV-VT1

Retrieve Virtual Tributary 1 – Use this command to retrieve the VT1 status.

RTRV-VT1:[<tid>]:[<aid>]:<ctag>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier in the format oc3-1-1-(1 – 3)-(1 – 4); for example, oc3-1-1-3-4 identifies VT1 within OC3 line 1, STS 1, VT group number 3, and VT number 4 on this unit.

<ctag> = correlation tag.

Example -- Correct Input and Typical Response for RTRV-VT1

<i>Correct Input</i>	rtrv-vt1:PULSECOM2:oc3-1-1-3-4:1;
<i>Typical Response</i>	PULSECOM2 08-06-04 09:34:42 M 1 COMPLD ; "OC3-1-1-3-4:IS-NR" ;

2.14 Schedule Function

2.14.1 **SCHED-PMREPT-OC3**

Schedule Performance Monitoring Reports OC3 – Use this command to schedule OC3 PM reports. Using the “numrept” parameter=0 to delete a PM schedule can only be performed after the PM schedule has been created (i.e., first Example 1, then Example 2).

SCHED-PMREPT-OC3:[<tid>]:[<aid>]:<ctag>::[reptinvl],[numrept];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, oc3-1 identifies the OC3 facility on this unit.

<ctag> = correlation tag.

reptinvl = report interval of PM parameter: 15-min or 1-day.

numrept = number report: 0 to shut off report.

Example 1 -- Correct Input and Typical Response for SCHED-PMREPT-OC3, Report Interval 15 Minutes

<i>Correct Input</i>	sched-pmrept-oc3:PULSECOM2:oc3-1:1::15-min;
<i>Typical Response</i>	<pre> PULSECOM2 09-03-01 13:49:37 M 1 COMPLD ; PULSECOM2 09-03-01 13:49:37 A 21 REPT DBCHG "TIME=13-49,DATE=03-01,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=6:SCHED-PM-OC3:OC3-1:" ; </pre>

Example 2 -- Correct Input and Typical Response for SCHED-PMREPT-OC3 for Shutting Off the PM Report

<i>Correct Input</i>	sched-pmrept-oc3:PULSECOM2:oc3-1:1::15-min,,0;
<i>Typical Response</i>	<pre> PULSECOM2 09-03-01 13:49:37 M 1 COMPLD ; PULSECOM2 09-03-01 13:49:37 A 21 REPT DBCHG "TIME=13-49,DATE=03-01,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=6:SCHED-PM-OC3:OC3-1:" ; </pre>

Example 3 -- Correct Input and Typical Response for SCHED-PMREPT-OC3, Report Interval 1 Day

<i>Correct Input</i>	sched-pmrept-oc3:PULSECOM2:oc3-1:1::1-day;
<i>Typical Response</i>	<pre> PULSECOM2 09-02-25 08:42:45 M 1 COMPLD ; PULSECOM2 09-02-25 08:42:45 A 193 REPT DBCHG "TIME=08-42,DATE=02-25,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=1:SCHED-PM-OC3:OC3-1:" ; </pre>

2.14.2 SCHED-PMREPT-STS1

Schedule Performance Monitoring Reports STS1 – Use this command to schedule STS-1 PM reports. Using the “numrept” parameter=0 to delete a PM schedule can only be performed after the PM schedule has been created (i.e., first Example 1, then Example 2).

SCHED-PMREPT-STS1:[<tid>]:[<aid>]:<ctag>::[reptinvl],,[numrept];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, oc3-1-1 identifies the first STS-1 facility on this unit.

<ctag> = correlation tag.

reptinvl = report interval of PM parameter: 15-min or 1-day.

numrept = number report: 0 to shut off report.

**Example 1 -- Correct Input and Typical Response for SCHED-PMREPT-STS1,
 Report Interval 15 Minutes**

<i>Correct Input</i>	sched-pmrept-sts1:PULSECOM2:oc3-1-1:1::15-min;
<i>Typical Response</i>	PULSECOM2 09-02-25 08:57:55 M 1 COMPLD ; PULSECOM2 09-02-25 08:57:55 A 197 REPT DBCHG "TIME=08-57,DATE=02-25,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=2:SCHED-PM-STS:OC3-1-1:" ;

Example 2 -- Correct Input and Typical Response for SCHED-PMREPT-STS1 for Shutting Off the PM Report

<i>Correct Input</i>	sched-pmrept-sts1:PULSECOM2:oc3-1-1:1::15-min,,0;
<i>Typical Response</i>	<pre> PULSECOM2 09-06-25 09:16:20 M 1 COMPLD ; PULSECOM2 09-06-25 09:16:20 A 601 REPT DBCHG "TIME=09-16,DATE=06-25,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=15:SCHED-PM-STS: OC3-1-1:" ; </pre>

Example 3 -- Correct Input and Typical Response for SCHED-PMREPT-STS1, Report Interval 1 Day

<i>Correct Input</i>	sched-pmrept-sts1:PULSECOM2:oc3-1-1:1::1-day;
<i>Typical Response</i>	<pre> PULSECOM2 09-06-25 09:18:57 M 1 COMPLD ; PULSECOM2 09-06-25 09:18:57 A 603 REPT DBCHG "TIME=09-18,DATE=06-25,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=17:SCHED-PM-STS: OC3-1-1:" ; </pre>

2.14.3 SCHED-PMREPT-T1

Schedule Performance Monitoring Reports T1 – Use this command to schedule T1 PM reports. Using the “numrept” parameter=0 to delete a PM schedule can only be performed after the PM schedule has been created (i.e., first Example 1, then Example 2).

SCHED-PMREPT-T1:[<tid>]:[<aid>]:<ctag>::[reptinvl],[numrept];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = access identifier specifies object to which the command applies; for example, t1-1 identifies the first T1 facility on this unit.

<ctag> = correlation tag.

reptinvl = report interval of PM parameter: 15-min or 1-day.

numrept = number report: 0 to shut off report.

Example 1 -- Correct Input and Typical Response for SCHED-PMREPT-T1, Report Interval 15 Minutes

<i>Correct Input</i>	sched-pmrept-t1:PULSECOM2:t1-1:1::15-min;
<i>Typical Response</i>	<pre> PULSECOM2 09-02-25 09:35:47 M 1 COMPLD ; PULSECOM2 09-02-25 09:35:47 A 205 REPT DBCHG "TIME=09-35,DATE=02-25,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=4:SCHED-PM-DS1:T1-1:" ; </pre>

Example 2 -- Correct Input and Typical Response for SCHED-PMREPT-T1 for Shutting Off the PM Report

<i>Correct Input</i>	sched-pmrept-t1:PULSECOM2:t1-1:1::15-min,,0;
<i>Typical Response</i>	<pre> PULSECOM2 09-06-25 09:01:00 M 1 COMPLD ; PULSECOM2 09-06-25 09:01:00 A 596 REPT DBCHG "TIME=09-01,DATE=06-25,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=13:SCHED-PM-DS1:T1-1:" ; </pre>

Example 3 -- Correct Input and Typical Response for SCHED-PMREPT-T1, Report Interval 1 Day

<i>Correct Input</i>	sched-pmrept-t1:PULSECOM2:t1-1:1::1-day;
<i>Typical Response</i>	<pre> PULSECOM2 09-02-25 09:37:04 M 1 COMPLD ; PULSECOM2 09-02-25 09:37:04 A 206 REPT DBCHG "TIME=09-37,DATE=02-25,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=5:SCHED-PM-DS1:T1-1:" ; </pre>

2.15 Set Function

2.15.1 SET-ATTR-SECUALM

Set Attributes Security Alarms – Use this command to set attributes for the security alarms.

SET-ATTR-SECUALM:[<tid>]:<uid>:<ctag>::<ntfncdc>,<secualmType>,<notType>,<rouT>,<almmsg>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<uid> = user identifier (1 – 10 alphanumeric characters); case-sensitive in older O3-12D1DN units; factory default = ROOT.

<ctag> = correlation tag.

<ntfncdc> = notification code that is generated on the network element when a threshold is cleared or exceeded: critical (CR), major (MJ), or minor (MN).

<secualmType> = security alarm type: REPT-ALM-SECU, REPT-EVT-SESSION, or CANC.

<notType> = notification type: MESSAGE.

<rouT> = routing number: string of one or more characters.

<almmsg> = alarm message: string of up to 40 characters.

Example -- Correct Input and Typical Response for SET-ATTR-SECUALM

<i>Correct Input</i>	set-attr-secualm:PULSECOM2:ROOT:1::CR,REPT-ALM-SECU,MESSAGE,A,A;
<i>Typical Response</i>	PULSECOM2 09-03-01 14:03:26 M 1 COMPLD ;

2.15.2 SET-ATTR-SECUDFLT

Set Attributes Security Defaults – Use this command to set default attributes for user security.

SET-ATTR-SECUDFLT:[<tid>]:[<aid>]:<ctag>:::[page=<page>][,pcnd=<pcnd>][,pcnn=<pcnn>][,point=<point>][,uout=<uout>];

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

<page> = password age, the amount of time the user is allowed to login without changing the password. After the page period has passed, the system prompts the user to change the password before pcnd or pcnn expiration completely disables the uid. Allowed page input values in days are 0 to 999; entering 0 will disable this parameter.

<pcnd> = the amount of time the user has to change the password after the page period has passed. Allowed pcnd input values in days are 0 to 999.*

<pcnn> = the number of times the user can log in after the page period has passed. Allowed pcnn input values in days are 0 to 999.*

*Note that pcnd and pcnn are mutually exclusive.

<point> = the minimum amount of time the user must wait to reuse an old password. Allowed point input values in days are 0 to 999.

<uout> = the amount of time the user can go without logging in. At the end of this interval, the uid is disabled. Allowed uout input values in days are 0 to 999; entering 0 will disable this parameter.

Example -- Correct Input and Typical Response for SET-ATTR-SECUDFLT

<i>Correct Input</i>	set-attr-secudflt:PULSECOM2::1:::page=999,pcnd=999,point=999,uout=999;
<i>Typical Response</i>	PULSECOM2 09-03-18 10:13:56 M 1 COMPLD ;

2.15.3 SET-ATTR-SECULOG

Set Attributes Security Log – Use this command to set attributes for the security log.

```
SET-ATTR-SECULOG:[<tid>]:[<aid>]:<ctag>::[upslg=<upslg>],[warn=<warn>],
[logevent=<logevent>];
```

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

<upslg> = log size: maximum size of the log file (for example, 200).

<warn> = warning message string to be printed after login (for example, proprietary).

<logevent> = log event: EIUA.

Example -- Correct Input and Typical Response for SET-ATTR-SECULOG

<i>Correct Input</i>	set-attr-seculog:PULSECOM2::1::upslg=200,warn=proprietary,logevent=EIUA;
<i>Typical Response</i>	PULSECOM2 09-03-01 14:16:23 M 1 COMPLD ;

2.15.4 SET-SID

Set Source Identification – Use this command to set the source identification string. The source identifier is provided in output and autonomous message headers. It identifies the NE from where output and autonomous messages are coming. The SET-SID command sets the system identification code to the specified value.

CAUTION: Executing this command could cause loss of network communication to the unit.

SET-SID:[<tid>]:[<aid>]:<ctag>::<sid>;

<tid> = target identifier (network address); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

<aid> = this parameter is ignored.

<ctag> = correlation tag.

<sid> = source identifier or name of unit (1 – 20 alphanumeric characters).

Example -- Correct Input and Typical Response for SET-SID

<i>Correct Input</i>	set-sid:PULSECOM2::1::PULSECOM3;
<i>Typical Response</i>	PULSECOM3 70-01-01 00:38:48 M 1 COMPLD ;

3 AUTONOMOUS MESSAGES

3.1 REPT ALM rr

Report Alarm is an autonomous message sent by the network element (NE) to alert the network operations center of an alarmed event. Some alarmed events are faults or failures on the line or the unit. Possible messages include REPT^ALM^OC3, REPT^ALM^EQPT, REPT^ALM^STS1, and REPT^ALM^T1.

AUTONOMOUS Message Format:

```
<cr><lf><lf>
^^^SID^DATE^TIME
ALARM CODE^ATAG^REPT^ALM^rr
^^^"<AID>:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[OCRDATE],[OCRTIME],
[LOCN],[DIRN],[MONVAL],[THLEV],[TMPER]:[CONDDDESCR],"
<cr><lf>
;
```

cr = Carriage return.

lf = Line feed.

ALARM CODE = A^ (no alarm), *C (critical alarm), ** (major alarm), *^ (minor alarm).

ATAG = Autonomous tag (for example, 57).

REPT ALM rr = AutoCode, where rr = EQPT, OC3, STS1, or T1.

AID = Access ID identifies the object to which the command applies; for example, T1-1 identifies the first T1 facility on this unit.

NTFCNCDE = Notification code: cleared (CL), critical (CR), major (MJ), minor (MN), or no alarm (NA).

CONDTYPE = Condition type: loss of signal (LOS), loss of frame (LOF), loss of pointer (LOP), alarm indication signal (AIS), remote defect indicator (RDI), signal degrade (SD), bipolar violation (BPV), or high temperature (HITEMP).

SRVEFF = Service affecting (SA) or not service affecting (NSA).

OCRDATE = Occurrence date of event: month-date (MM-DD).

OCRTIME = Occurrence time of event: hour-minute (hh-mm).

LOCN = Location of event: near end (NEND) or far end (FEND).

DIRN = Direction: receive (RCV) or transmit (XMT).

MONVAL = Measured value of a monitored parameter.

THLEV = Threshold level of a monitored threshold value.

TMPER = Time period of alarm occurrence (related to PM values): 15-min or 1-day.

CONDDESCR = Condition description (^" \").

Example – REPT ALM rr Autonomous Message

<i>Typical Message</i>	PULSECOM2 08-06-02 15:37:17 A 57 REPT ALM T1 "T1-1:CL,LOS,SA,06-02,15-37,NEND,RCV,,,"Signal failure-LOS condition cleared on DS1 line 1\",";";"
----------------------------	--

3.2 REPT DBCHG

Report Database Change is an autonomous message sent by the system to report a change to the database.

AUTONOMOUS Message Format:

```
<cr><lf><lf>
^^^SID^DATE^TIME
ALARM CODE^ATAG^REPT^DBCHG
^^^"[TIME],[DATE],[SOURCE],[LINKID],[USERID],[DBCHGSEQ],[MESSAGE]"
<cr><lf>
;
```

cr = Carriage return.

lf = Line feed.

ALARM CODE = A^ (no alarm), *C (critical alarm), ** (major alarm), *^ (minor alarm).

ATAG = Autonomous tag (for example, 91).

REPT DBCHG = AutoCode.

TIME = Time of database change: hour-minute (hh-mm).

DATE = Date of database change: month-date (MM-DD).

SOURCE = Target identifier (tid); factory default = PULSECOM (for O3-12D1DN set as CO) **or** PULSECOM2 (for O3-12D1DN set as Remote).

LINKID = Channel identifier (cid): DCC or CRAFT.

USERID = User identifier (uid); factory default = ROOT.

DBCHGSEQ = Database change sequence: any numerical value.

MESSAGE = Message sent (for example, RMV-EQPT:UNIT).

Example – REPT DBCHG Autonomous Message

<i>Typical Message</i>	<pre>PULSECOM2 08-06-03 13:00:53 A 91 REPT DBCHG "TIME=13-00,DATE=06-03,SOURCE=PULSECOM2,LINKID=DCC, USERID=ROOT,DBCHGSEQ=8:RMV-EQPT:UNIT:" ;</pre>
------------------------	---

3.3 REPT EVT rr

Report Event is an autonomous message sent by the NE to alert the NOC of a non-alarmed event. Some alarmed events are faults or failures on the line or the unit. Possible messages include REPT^EVT^OC3, REPT^EVT^STS1, REPT^EVT^T1, REPT^EVT^EQPT, and REPT^EVT^SESSION.

AUTONOMOUS Message Format:

```
<cr><lf><lf>
^^^SID^DATE^TIME
ALARM CODE^ATAG^REPT^EVT^rr
^^^"<AID>:<CONDTYPE>,[CONDEFF],[OCRDATE],[OCRTM],[LOCN],
[DIRN],[MONVAL],[THLEV],[TMPER]:[CONDDDESC],"
<cr><lf>
;
```

cr = Carriage return.

lf = Line feed.

ALARM CODE = A^ (no alarm), *C (critical alarm), ** (major alarm), *^ (minor alarm).

ATAG = Autonomous tag (for example, 48).

REPT EVT rr = AutoCode, where rr = OC3, STS1, T1, EQPT, or SESSION.

AID = Access ID identifies the object to which the command applies; for example, T1-2 identifies the second T1 facility on this unit.

CONDTYPE = Condition type (for example, T-UAS-P).

CONDEFF = Indicates the effect of the event on the condition of the NE (for example, TC).

OCRDATE = Occurrence date of event: month-date (MM-DD).

OCRTIME = Occurrence time of event: hour-minute (hh-mm).

LOCN = Location of event: near end (NEND) or far end (FEND).

DIRN = Direction: receive (RCV) or transmit (XMT).

MONVAL = Measured value of a threshold parameter (for example, 10).

THLEV = Threshold level against which the monval is compared (for example, 10).

TMPER = Time period event occurred: 15-MIN or 1-DAY.

CONDDDESCR = Condition description (^" ^").

Example 1 – REPT EVT rr Autonomous Message

<i>Typical Message</i>	PULSECOM2 08-06-02 15:30:10 A 48 REPT EVT T1 "T1-2:T-UAS-P,TC,06-02,15-30,NEND,RCV,10,10,15-MIN:,,," ;
------------------------	---

Example 2 – REPT EVT rr Autonomous Message

<i>Typical Message</i>	PULSECOM2 08-06-02 10:23:21 A 0 REPT EVT SESSION "ROOT:NO," /*NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution.*/ ;
------------------------	---

3.4 REPT PM rr

Report Performance Monitoring is an autonomous message sent by the system. Possible messages include REPT^PM^OC3, REPT^PM^STS1, and REPT^PM^T1.

AUTONOMOUS Message Format:

```
<cr><lf><lf>
^^^SID^DATE^TIME
ALARM CODE^ATAG^REPT^PM^rr
^^^"<AID>:[MONTYPE],[MONVAL],[VALIDITY],[LOCN],[DIRN],
[TMPER],[MONDAT],[MONTIME]"
<cr><lf>
;
```

cr = Carriage return.

lf = Line feed.

ALARM CODE = A^ (no alarm), *C (critical alarm), ** (major alarm), *^ (minor alarm).

ATAG = Autonomous tag (for example, 83).

REPT PM rr = AutoCode, where rr = OC3, STS1, or T1.

AID = Access ID identifies the object to which the command applies; for example, T1-1 identifies the first T1 facility on this unit.

MONTYPE = Monitored type [for example, severely errored seconds-path (SES-P)].

MONVAL = Measured value of a monitored parameter (for example, 0).

VALIDITY = Complete (COMPL), partial (PRTL), or OFF.

LOCN = Location: near end (NEND) or far end (FEND).

DIRN = Direction: receive (RCV) or transmit (XMT).

TMPER = Time period: 15-MIN or 1-DAY.

MONDAT = Monitoring date: month-date (MM-DD).

MONTIME = Monitoring time: hour-minute (hh-mm).

Example – REPT PM rr Autonomous Message

<i>Typical Message</i>	<pre> PULSECOM2 08-06-02 16:15:00 A 83 REPT PM T1 "T1-1:CV-L,0,COMPL,NEND,RCV,15-MIN,06-02,16-15" "T1-1:ES-L,0,COMPL,NEND,RCV,15-MIN,06-02,16-15" "T1-1:SES-L,0,COMPL,NEND,RCV,15-MIN,06-02,16-15" "T1-1:LOSS-L,0,COMPL,NEND,RCV,15-MIN,06-02,16-15" "T1-1:CV-P,0,COMPL,NEND,RCV,15-MIN,06-02,16-15" "T1-1:ES-P,0,COMPL,NEND,RCV,15-MIN,06-02,16-15" "T1-1:SES-P,0,COMPL,NEND,RCV,15-MIN,06-02,16-15" "T1-1:AISS-P,0,COMPL,NEND,RCV,15-MIN,06-02,16-15" "T1-1:SAS-P,0,COMPL,NEND,RCV,15-MIN,06-02,16-15" "T1-1:UAS-P,900,COMPL,NEND,RCV,15-MIN,06-02,16-15" "T1-1:FC-P,0,COMPL,NEND,RCV,15-MIN,06-02,16-15" ; </pre>
------------------------	--

4 CUSTOMER SERVICE

Direct any questions concerning the operation of the unit to Technical Support. If the unit is defective, limit field repair to replacement of the plug-in module only. Obtain repair services by returning the defective unit to the Engenuity Repair Department, 3545 Stern Ave, St. Charles, IL 60174; email sales@engenuitycom.com.

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