Alcatel-Lucent 1850

1850 TSS-100 | RELEASE 01.01

COMMAND LINE INTERFACE (CLI) GUIDE

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THIS PRODUCT COMPLIES WITH D.H.H.S. RADIATION PERFORMANCE STANDARDS 21 CFR, 1040.10, FOR A CLASS 1 LASER PRODUCT.

Notice

Every effort was made to ensure that this information product was complete and accurate at the time of printing. However, information is subject to change.

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1. Preface

1.1 Safety Recommendations

The following safety recommendations must be considered to avoid personal injury and/or damage to equipment.

Service Personnel

Installation and service must be carried out by authorized personnel with appropriate technical training, experience, and knowledge to avoid hazardous operations during installation and service. Service by inexperienced personnel can result in personal injury or danger to other individuals, as well as damage to the equipment.

Access to the Equipment

Access to the Equipment in operation must be restricted to authorized service personnel only.

Safety Rules

Follow local safety regulations and safety instructions in hardware documentation for your product. In case of conflict between safety instructions in the hardware documentation and local regulations, mandatory local norms will prevail. If local regulations do not exist, then safety rules stated in your hardware documentation will prevail.

NOTICE

THIS PRODUCT COMPLIES WITH D.H.H.S. RADIATION PERFORMANCE STANDARDS 21 CFR, 1040.10, FOR LASER PRODUCT.

DANGER

Invisible laser radiation is present when the optic connector is open. AVOID DIRECT EXPOSURE TO BEAM.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

Service Personnel Skill

Service Personnel must have an adequate technical background in telecommunications, and in the equipment covered by this document, to properly install, operate, and maintain the equipment. Reading this document and the associated documents is insufficient without additional background and experience.

1.2 Applicability

This document applies to the 1850 TSS-100 product, Release 01.01.00.

NOTES FOR SOFTWARE DOCUMENTATION

Software documentation is not modified unless a new software version distributed to customers that contains interface changes beyond slight modifications not affecting the understanding of the previously explained procedures.

Also, screen printouts included in the document that display a product–release version, are not replaced unless the command entry or response in printout have changed.

1.3 Scope

This document describes configuration and administrations commands and options for the software release

This document must be used together with the associated *1850 TSS-100 TL1 Operations Manual, Volume 1,* and does not replicate information contained in it. Safety warnings and rules for EMC and ESD safety, as well as warnings about operations that may damage equipment, are not covered in this document. That information is located in the Technical Documentation for this product.

When using this document it is assumed that the Operator knows:

- Physical and operational details of the hardware, including all operating modes supported by this Release
- How to use a PC, the Windows operating system, and all necessary applications.

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1.4 Intended audience

The safety guide identifies everyone qualified for working on 1850 TSS-100 systems.

1.5 Related Documents

For additional system information, refer to the following related documents:

- 1850 TSS-100 Product Information (PN 3EM19281AB)
- 1850 TSS-100 Installation Guide (PN 3EM19282AB)
- 1850 TSS-100 Turn-Up and Commissioning (PN 3EM19283AB)
- 1850 TSS-100 TL1 Operations Guide, Volume 1 (PN 3EM19285AA)
- 1850 TSS-100 TL1 Operations Guide, Volume 2 (PN 3EM19286AB)
- 1850 TSS-100 TL1 Maintenance and Trouble Clearing (PN 3EM19284AB)
- 1850 TSS-100 Craft Terminal Operations Guide (PN 3EM22090AA)
- 1850 TSS-100 Safety Guide (PN 3EM22092AA)
- 1850 TSS-100 Engineering Rules (PN 3EM22093AA)

2. Introduction

2.1 About this Document

This document provides the user a concise, practical and easy-to-use document for configuring the Alcatel-Lucent 1850 TSS-100 via its character based Command Line Interface (CLI).

This Document is a comprehensive resource to all command line interface informatoin available on the Alcatel-Lucent 1850 TSS-100.

I M P O R T A N T N O T E

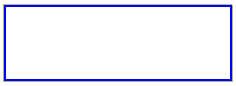
At the start of each command group, there is a complete list of the CLI commands described for that group associated to a link the information for that command.

2.1.1 Graphic conventions used

In this document the following graphic conventions are used:

This black box contains a generic example of preliminary information.

This orange box contains an example of CLI commands unavailable to the Operator.



This blue box contains a specific example of the relevant CLI command.

2.1.2 Document composition

This document consists of three main parts:

- **Part 1: CLI Navigation**

  This part is meant to make the user familiar with the use and operation of the Alcatel-Lucent 1850 TSS-100 CLI. As well as describing the various access methods to the CLI, this part will describe in brief some general instructions for navigating through and to performing some operations on the CLI (this chapter).

- **Part 2: CLI Command Description**

  This part forms the main part of this document. Here all available CLI commands of the Alcatel-Lucent 1850 TSS-100 are **alphabetically described per group selection**.

  Each command is described using the following format:

  - the full name of the CLI command (including the group selection);
  - a short description of the CLI command as well as the possible impact on the user and/or the Alcatel-Lucent 1850 TSS-100;
  - the syntax of the command with a description of each parameter;
  - an example to demonstrate the use of the CLI command.

- **Part 3: CLI Command Index**

  The CLI command Index is an alphabetical list of CLI commands that allows you to locate a command alphabetically and identify the page that contains complete information about the command.

2.2 Accessing the Command Line Interface

Users access the Command Line Interface via a **telnet** session.

A telnet connection requires TCP/IP connectivity between the host from which the telnet session is being opened and the Alcatel-Lucent 1850 TSS-100.

When a session to the CLI is opened, the Alcatel-Lucent 1850 TSS-100 banner is displayed, followed by the CLI prompt.

Users will be required to enter a valid login and password before telnet access is granted.

The following example shows the Alcatel-Lucent 1850 TSS-100 after opening a telnet session and receiving authentication:

```
C:\>telnet <shelf IP addr> 1123
```

```
Login:ADMIN
Password:*****
Cli:ADMIN >
```

The parameters of telnet string command are:

- the network element or shelf TCP/IP Address
- the TCP/IP port number, fixed at 1123.

The Alcatel-Lucent 1850 TSS-100 has the following limitations on the number of sessions allowed:

- A maximum of **5** telnet sessions are allowed.

The following example shows an attempt to connect to an unavailable device:

```
C:\>telnet 10.10.10.13 1123
Connecting To 10.10.10.13...Could not open connection to the host, on port 1123:
 Connect failed

C:\>
```

2.2.1 CLI Access Privileges

CLI commands are assigned access privileges, according to the functions they perform. Users are also assigned privileges. Users must be assigned the same access privilege assigned to a command to be able to execute that command. The following privileges may be assigned:

- CONF - Configure. These commands configure the system and perform non-destructive provisioning or testing of I/O cards, ports, interfaces and circuits, as well as retrieve information about the system. These commands can configure all subsystems which do not have a system-wide affect.
- NETADMIN - Network Administrator. These commands configure anything in the system except user accounts.
- PROV - Provisioning. These commands perform non-destructive provisioning of I/O cards, ports, and interfaces, initiate test procedures which are not service affecting, and retrieve information about the system.
- READ - Read-only. These commands retrieve information about the system.
- SEC - Security Administrator. These commands create, delete, and modify user accounts.
- DEBUG - Debug. These commands provide debug functions.

CLI users are usually assigned a mix of access privileges within the system. The following example shows various user access privileges.

```
Cli> user show
User Login  Privileges
=======================================================
ALCATEL     CONF+DEBUG+NETADMIN+NOTMOUT+PROV+READ+SEC
EML001      CONF+NETADMIN+NOTMOUT+PROV+READ+SEC
EML002      CONF+NETADMIN+NOTMOUT+PROV+READ+SEC
USER05      CONF+NETADMIN+NOTMOUT+PROV+READ+SEC
```

Note in the example above that users are assigned the additional privilege of NOTMOUT. This means no time out (expiration) is assigned to the telnet session for that user. This is a user privilege only not a comand privilege.

Command privileges are assigned to via TL1 commands. User privileges can be assigned with the CLI command ‘user create’ or via TL1 commands.

For information about command and user privileges refer to the following manual:
Alcatel-Lucent *1850 TSS-100 TL1 Operations Guide, Volume 2*.

2.2.2 CLI Responses

The following examples show some of some standard responses returned under different circumstances.

The following example illustrates the message that is displayed when a telnet session is idle for more than 30 minutes:

```
Cli:ADMIN >
This terminal has been idle for 30 minutes.
It will be logged out if it remains idle for another 30 minutes.
Log out by the system


Connection to host lost.
```

Note: to resume the session, press ‘Enter’.

The following example illustrates the message that is displayed when an unavailable command is typed:

```
Cli:ADMIN > list

CLI msg: bad command

Cli:ADMIN >
```

The following example illustrates the message that is displayed when an invalid command (in the “eqpt” command group) is refused:

```
Cli:ADMIN (eqpt) > show eqpt

CLI msg: invalid parameters number
```

The following example illustrates the message that is displayed when output is too long to be completely displayed on the screen (dependent on telnet setting):

```
Press any key to continue (Q to quit)
```

The following example illustrates the message that is displayed when a command is entered that is not supported by the current release:

```
Cli:ADMIN > extpoint
Cli:ADMIN (extpoint) > show in

CLI msg: not yet supported command

Cli:ADMIN (extpoint) >
```

2.3 Navigation and Manipulation

Manipulation commands are commands that manipulate operations on the command line (for example, changing the command group, going to the beginning of the command line, going to the end of the command line).

The help edit command can be entered to obtain a list of available editing keystrokes, as follows:

```
Cli:ALCATEL > help edit

Available editing keystrokes

Delete current character.....................Ctrl-d
Delete text up to cursor.....................Ctrl-u
Delete from cursor to end of line............Ctrl-k
Move to beginning of line....................Ctrl-a
Move to end of line..........................Ctrl-e
Get prior command from history...............Ctrl-p
Get next command from history................Ctrl-n
Move cursor left.............................Ctrl-b
Move cursor right............................Ctrl-f
Move back one word...........................Esc-b
Move forward one word........................Esc-f
Convert rest of word to uppercase............Esc-c
Convert rest of word to lowercase............Esc-l
Delete remainder of word.....................Esc-d
Delete word up to cursor.....................Ctrl-w
Transpose current and previous character.....Ctrl-t
Enter command and return to root prompt......Ctrl-z
Refresh input line...........................Ctrl-l
```

2.3.1 Command Completion

The CLI supports a command completion feature. A command that has not been entered completely, but has been entered to the point that it is unique from other commands, can be completed by pressing the **Tab** key.

For example, entering “eqpt p” from top level followed by the **Tab** key will display the full assign command

For the completion to be successful, the part to be completed must be unique. Completion works for command groups, commands, and options, but not values.

Example:

```
Cli:ADMIN > eqpt
Cli:ADMIN (eqpt) > p
position              prot                  pwd
Cli:ADMIN (eqpt) > p
```

Note: “**Tab**” is not shown on screen.

2.3.2 Moving to the Start or End of the Command Line

You can move your cursor to the start of the Command Line by pressing **Ctrl+A**.
You can move your cursor to the end of the Command Line press **Ctrl+E**.

In the following examples the first underscore (_) indicates the position of the cursor after pressing **Ctrl+A**. The second underscore indicates the position of the cursor after pressing **Ctrl+E**.

Examples:

```
Cli:ADMIN (user) > changepwd
```

```
Cli:ADMIN (user) > changepwd
```

2.3.3 Terminating Commands

You can terminate a command by pressing **Ctrl+Z**.

This can be useful in a situation where you are prompted for information that you are not prepared to enter. You can abort the command to stop the continuing prompt to enter the value.

The the following example illustrates the screen display with a command is terminated.

Example:

```
Cli:ADMIN > user
Cli:ADMIN (user) >

Cli:ADMIN >
```

2.3.4 Command History

You can press the up arrow (↑) key to move backward through previously entered commands. You can move forward through the list to more recent commands by pressing the down arrow (↓) key. Press **Enter** (↵) to execute a command after it has been located.

The following screen shows an example of command history. Entering “history” will show recent command line entries. Entering the number of the command preceeded by an exclamation point (“!2”) will repeat the command execution.

```
Cli:ALCATEL > history
   1 help edit
   2 help commands
   3 history
Cli:ALCATEL > !2
Cli:ALCATEL > help commands

 administrator        - Change / display configuration parameters.
 alias                - Text substitution
 broadcast            - Write message to all users logged in
 cat                  - Display contents of a file
 cd                   - Change working directory
 clear                - Clear the screen
 date                 - Display current date
 echo                 - Echo text typed in
 exec                 - Execute a file
 exit                 - Exit intermediate mode
 help                 - Show command help
 history              - Show command history
 logout               - Log off this system
 ls                   - List files
 pwd                  - Print working directory
 sleep                - Sleep for n seconds
 stty                 - Terminal settings
 tree                 - Show command tree
 who                  - Display users currently logged in
 write                - Write text to another user
```

2.3.5 Go to the Top Level

To return to top command level, or to descend one level in a nested command group, type **exit**:

Example:

```
Cli:ADMIN >
Cli:ADMIN > eqpt
Cli:ADMIN (eqpt) > exit
Cli:ADMIN >
```

2.4 Command Group Navigation

From top level, you can enter a command group by entering the name of the desired group.

To view a list of the available command groups, enter **help** from the top level.

Example:

```
Cli:ADMIN > help
 accessctrl           - accessctrl
 acl                  - acl
 alarmlist            - Get the currently active alarm list.
 alarmprofile         - alarmprofile
 alarmsynth           - Get a synthesis of the current active alarms.
 autodiscovery        - autodiscovery
 bridge               - bridge
 bridgedbfiltering    - bridgedbfiltering
 cbpdu                - cbpdu
 colorprofile         - colorprofile
 dcn                  - dcn
 debug                - debug
 eqpt                 - The commands in this domain are based on equipment manag
                        ement specification and relevant MIB.


 extpoint             - extpoint
 flow                 - Allows to retrieve the flow index, user-label and type o
                        f all configured flows.
 flowgroup            - flowgroup
 igmpforcedrep        - igmpforcedrep
 igmpsnoop            - igmpsnoop
 igmpstaticmgroups    - igmpstaticmgroups
 inflowclassifier     - inflowclassifier
 interface            - interface
 intf                 - intf
 linkagg              - linkagg
 log                  - log
 mgmtport             - mgmtport
 mstp                 - mstp
 ne                   - ne
 ntp                  - ntp
 os                   - Set the IP address and the UDP port for the OS main/spar
                        e.
 ospfarea             - ospfarea
 pbflowbid            - pbflowbid
 pbflowinunidir       - pbflowinunidir
 pbflowoutunidir      - pbflowoutunidir
 plugandplay          - Get/Set the auto-provisioning mode on a NE.
 pmmaint              - pmmaint
 pmqos                - pmqos

 portportbid          - portportbid
 portseg              - portseg
 resource             - resource
 routing              - routing
 routingstatic        - routingstatic
 severitydef          - severitydef
 stp                  - stp
 swpkg                - swpkg
 trafficdescriptor    - trafficdescriptor
 user                 - user
 vlanprotprofile      - vlanprotprofile
Cli:ADMIN > _
```

2.5 The Help Command

Enter **help** or a question mark (?) at top level to view the available command groups for the Alcatel-Lucent 1850 TSS-100:

```
Cli:ADMIN > help
 accessctrl            - accessctrl
 acl                   - acl
 alarmlist             - Get the currently active alarm list.
 alarmprofile          - alarmprofile
 alarmsynth            - Get a synthesis of the current active alarms.
 autodiscovery         - autodiscovery
 bridge                - bridge
 bridgedbfiltering     - bridgedbfiltering
 colorprofile          - colorprofile
 dcn                   - dcn
 debug                 - debug
 eqpt                  - The commands in this domain are based on equipment manag
                         ement specification and relevant MIB.


 extpoint              - extpoint
 flowgroup             - flowgroup
 igmpforcedrep         - igmpforcedrep
 igmpsnoop             - igmpsnoop
 inflowclassifier      - inflowclassifier
 interface             - interface
 intf                  - intf
 linkagg               - linkagg
 log                   - log
 mgmtport              - mgmtport
 mstp                  - mstp
 ne                    - ne
 ntp                   - ntp
 os                    - Set the IP address and the UDP port for the OS main/spar
                         e.
 ospfarea              - ospfarea
 pbflowbid             - pbflowbid
 pbflowinunidir        - pbflowinunidir
 pbflowoutunidir       - pbflowoutunidir
 plugandplay           - Get/Set the auto-provisioning mode on a NE.
 pmmaint               - pmmaint
 pmqos                 - pmqos
 portportbid           - portportbid
 portseg               - portseg
 resource              - resource
 routing               - routing
 routingstatic         - routingstatic
 severitydef           - severitydef
 stp                   - stp
 swpkg                 - swpkg
 trafficdescriptor     - trafficdescriptor
 user                  - user
 vlanprotprofile       - vlanprotprofile
Cli:ADMIN >
```

You can execute the help command from each command group selection. The following example is shows the help command entered from the “acl” command group.
The help command lists the available commands, and any available nested command groups, in the command group.

Example:

```
Cli:ADMIN > acl
Cli:ADMIN (acl) > help
 acl                    - acl
 add                    - Create an Access Control Element in an Access Control Li
                          st.
 create                 - Create an Access Control List.
 delete                 - Delete an Access Control List with its elements.
 disable                - Disable an already created Access Control List.
 enable                 - Enable an already created Access Control List.
 remove                 - Delete an Access Control Element of an Access Control Li
                          st, by indicating the index.
 show                   - Get info about all/one Access Control Element of Access
                          Control List.
Cli:ADMIN (acl) >
```

Executing “eqpt ?” at top level gives the same result as executing help in the “eqpt” command group.

Example:

```
Cli:ADMIN > eqpt
 eqpt                   - The commands in this domain are based on equipment manag
                          ement specification and relevant MIB.


 position               - Address to a specific equipment position (slot).



 prot                   -
                                                 manualSwitch from eqptNaming1 to
                           eqptNaming2 : allows to initiate/terminate a manual swi
                          tch operation (either to main or spare protection unit).

                                                 show unit eqptNaming: get the in
                          formation about a protection unit of a protection group.




 show                   - Allows to display some information of an equipment posit
                          ion.

Cli:ADMIN > eqpt
```

Note: “**?**” is NOT displayed on screen.

You can view the syntax for a command by entering help followed by the command (for example, “help eqpt position”) starting from top level or “help eqpt” on the eqpt command group selection.

This is shown in the following examples.

Examples:

```
Cli:ADMIN > help eqpt position
 position              - Address to a specific equipment position (slot).



 <eqptNaming>          - <String>
 asap                  - Set the Asap associated to an equipment position.
 reset                 - Perform board reset of an item in a specific equipment p
                         osition.
 show                  - Show info of an equipment position (asap, type, info, ri
                         ).
 type                  - Configure an equipment expected in an equipment position
                          slot.
Cli:ADMIN >
```

```
Cli:ADMIN > help eqpt
 eqpt                  - The commands in this domain are based on equipment manag
                         ement specification and relevant MIB.


 position              - Address to a specific equipment position (slot).



 prot                  -
                                                manualSwitch from eqptNaming1 to
                          eqptNaming2 : allows to initiate/terminate a manual swi
                         tch operation (either to main or spare protection unit).

                                                show unit eqptNaming: get the in
                         formation about a protection unit of a protection group.




 show                  - Allows to display some information of an equipment posit
                         ion.
```

```
Cli:ALCATEL > help commands

 administrator        - Change / display configuration parameters.
 alias                - Text substitution
 broadcast            - Write message to all users logged in
 cat                  - Display contents of a file
 cd                   - Change working directory
 clear                - Clear the screen
 date                 - Display current date
 echo                 - Echo text typed in
 exec                 - Execute a file
 exit                 - Exit intermediate mode
 help                 - Show command help
 history              - Show command history
 logout               - Log off this system
 ls                   - List files
 pwd                  - Print working directory
 sleep                - Sleep for n seconds
 stty                 - Terminal settings
 tree                 - Show command tree
 who                  - Display users currently logged in
 write                - Write text to another user
```

2.6 Command Line Interface Top Level Structure

The following CLI command groups are available from the top level.

Table 2A: Command Groups

no.	Command Group	y/n	no.	Command Group	y/n
1	abnormalcond	---	2	accessctrl	---
3	acl	---	4	alarmlist	√
5	alarmprofile	√	6	alarmsynth	√
7	autodiscovery	---	8	bridge	---
9	bridgedbfiltering	---	10	cbpdu	---
11	colorprofile	---	12	dcn	---
13	debug	√	14	eqpt	√
15	extpoint	---	16	flow	---
17	flowgroup	---	18	igmpforcedrep	---
19	igmpsnoop	---	20	igmpstaticmgroups	---
21	inflowclassifier	---	22	interface	√
23	intf	---	24	linkagg	---
25	log	√	26	mgmtport	---
27	mstp	---	28	ne	√
29	ntp	---	30	os	---
31	ospfarea	---	32	pbflowbid	---
33	pbflowinunidir	---	34	pbflowoutunidir	---
35	plugandplay	---	36	pmmaint	√
37	pmqos	---	38	portportbid	√
39	portseg	---	40	resource	---
41	routing	---	42	routingstatic	---
43	severitydef	√	44	stp	---
45	swpkg	√	46	trafficdescriptor	---
47	user	√	48	vlanprotprofile	---

Note: Three dashes (---) mean that the command group is not available in the current release. A check (√) means that the command group is available.

You can execute a CLI command from top level, by entering the command preceded by the name of the command group in which it should be executed.

You can also execute the commands directly in the command group.

Instead of entering a complete command with all its parameters, you can enter the command without parameters and be prompted to complete the command with the required and optional parameters.

For the optional parameters you can press enter to bypass the parameter without entering a value.

In the following chapters when N/A is shown, it means that command has no optional parameters (indexes definition) and the correct syntax is simply that of the command name.

2.7 Text Conventions

The following Table contains the text conventions and usage guidelines for CLI commands as they are used in this Document.

Table 2B: Text conventions

type of text	convention
bold text	Indicates basic command and keyword syntax. Example: **show eqpt link status**
italicized text	Indicates user-specified information such as slot numbers, user labels, password, names, etc. Example: **show eqpt position** *naming*
[ ] (Straight Brackets)	Indicates optional parameters for a given command. Example: **vlan profile** *vlanprof_userlabel* **[type** *ethertype_value***]** Here, you can enter either of the following options: **vlan profile** *vlanprof_userlabel* **vlan profile** *vlanprof_userlabel* **type** *ethertype_value*
{ } (Curly Braces)	Indicates that the user must choose between one or more parameters. Example: **interface** *naming* **mau default type {10 | 100 | 1000}** Here, you must choose one of the following: **interface** *naming* **mau default type 10** **interface** *naming* **mau default type 100** **interface** *naming* **mau default type 1000**
| (Vertical Pipes)	Used to separate the parameter choices within a command string. For example, the command string **interface** *naming* **mau default type {10 | 100 | 1000}** separates the choices **10**, **100** and **1000.** Examples: **interface** *naming* **mau default type 10** **interface** *naming* **mau default type 100** **interface** *naming* **mau default type 1000**
“ “ (Quotation Marks)	Used to enclose text strings that contain spaces. The quotation marks are required input on the command line. Example: **eqpt position** *naming_set_list* **asap “a b”**

2.8 CLI Command Indexes Definition

The resource naming format implementation is designed to meet different format requirements.

Each naming format can use its own specific symbols for “AND operation”, “range interval”, and “list elements separation”.

This Document considers only one naming format which is coherent with the operator label specification document and uses ampersand (**&**), hyphen (**-**), comma (**,**) for respectively “AND operation”, “range interval”, “list elements separation”.

2.8.1 List of Defined Indexes

The following indexes are defined for indicating specific resources within CLI commands:

1. *ace_index*
   An integer value indicating an element of an ACL.

2. *aceorder_number*
   An integer value, indicating the ordering position of execution of an Access Control Element in an ACL.

3. *adminkey_value*
   An integer value in the range [1 ... 124].

4. *admitted_fractional_rate*
   An integer value, indicating in Kbit/s the threshold value of the admitted bandwidth on the interface; it is used for triggering PAUSE frames generation.

5. *bridge_forward_delay*
   The Bridge Forward Delay used by STP to transition Root and Designated Ports to Forwarding; an integer value, measured in 0.01seconds, in the range [400 ... 3000] with default value=1500.

6. *bridge_hello_time*
   The interval between periodic transmissions of Configuration Message by Designated Ports; an integer value, measured in 0.01seconds, in the range [100 ... 200] with default value=200.

7. *bridge_max_age*
   The maximum age of the information transmitted by the Bridge when it is the Root Bridge; an integer value, measured in 0.01seconds, in the range [600 ... 4000] with default value=2000.

8. *bridge_pri*
   Writable portion of the bridge identifier (the first 2 byte of 8 byte); an integer value in the range [0 ... 61440] with granularity 4096 and default value=32768.

9. *cbs_value*
   An integer number, in the range [0 ... 64 MB] with 1 byte granularity.

10. *cir_value*
    An integer number, in the range [3 kbit/s ... port line rate] with 1 kbit/s granularity.

11. *classifier_id*
    An integer number, indicating the specific ETS InFlow classifier.

12. *confseverity* , *confseveritynsa*
    The configured severity or severity “non-service affecting” in the set: critical, major, minor, warning, indeterminate and cleared.

13. *ctrl_frame_32bits*
    It identifies the control frame types for managing their passing through or discarding and it has the following syntax:

    [customerbpdu] [providerbpdu] [slowprot] [802.1x] [providergvrp] [customergmrp] [customergarp] [bridgemgt] [reserved]

    This parameter selects to which control frame types the command {pass | drop} applies.
    If no optional parameter is present, it means all control frames.

    Inside the MIB, this information is mapped in a 32 bits string in which each bit (located in position 0 ... 31 with 0 being most significant bit) indicates if the frame type represented by this bit (0 ... 31) is discarded (bit=0) or passed (bit=1). Data frame have to be always passed.

    Bit mapping is defined in the Table 2C: on page 2-25.

14. *directorypath*
    The directory of the server in which the SW to be downloaded is stored. It has the form disk/folder/sub-folder/.../sub-folder where the last sub-folder contains the software package.

15. *domain_name*
    The domain name in the set: ‘eqpt’, ‘ts’ and ‘pm’.

16. *dscp*
    An integer value in the set [0 ... 63], indicating the DSCP value (or the lower bound of a DSCP range).

17. *dscp_set*
    An expression using integer values in the range [0 ... 63], and specific symbols for representing set of DSCP value ranges which are associated to “green” in that color profile.
    For instance, 12-15&55 means that the DSCP values 12, 13, 14, 15 and 55 are associated to ‘green’ in that color profile.

18. *ebs_value*
    An integer number, in the range [0-min [64MB, 256 * corresponding_CBS]] with 1 byte granularity.

19. *eir_value*
    An integer number, in the range [3 kbit/s ... port line rate] with 1 kbit/s granularity.

20. *eqpt_type*
    Identifies the type of the equipment.

21. *ethertype_value*
    A string composed of four hexadecimal characters.

22. *extpointin_naming*
    An integer number in the range [1 ... 8], indicating the specific Housekeeping Input.

23. *extpointout_naming*
    An integer number in the range [1 ... 4], indicating the specific Housekeeping Output.

24. *eventtype_id*
    An integer number, indicating the specific event type (within the allowed set) to be associated to an output external point working in automatic mode.

25. *eventtype_name*
    A string equal to the specific event type string (within the allowed set) to be associated to an output external point working in automatic mode.

26. *filename*
    A string indicating the name of file.

27. *filterDbAgeTime_value*
    A value in the set [280sec (default), 70min, 210min, 14h, 56h] indicating the filtering database Aging Time (see Alcatel-Lucent 1850 TSS-100 CT Operations Guide).

28. *floodinglimit_value*
    The ingress port admitted flooding rate expressed in kbit/s

29. *group_membership_interval*
    An integer value, measured in seconds, with default value=260.

30. *hh:mm:ss*
    Hour, an integer value in the range [0 ... 23]; minute, an integer value in the range [0 ... 59]; second, an integer value in the range [0 ... 59].

31. *ipAddr*
    An IP address in string decimal dot-separated format: n.n.n.n

32. *ipAddrBitMask*
    An IP address netmask in decimal dot-separated format: n.n.n.n

33. *lagsize_value*
    An integer value, in the range [1 .. 16].

34. *last_member_query_count*
    An integer value, in the range [1 ... 255] and with default value=2.

35. *last_member_query_interval*
    An integer value, measured in 0.1seconds, in the range [1 ... 255] and with default value=10 (1sec).

36. *macAddr*
    A MAC Address in string hex dash-separated format: xx:xx:xx:xx:xx:xx

37. *macBitMask*
    A MAC Address bit mask in string hex dash-separated format:

    xx:xx:xx:xx:xx:xx (for example, FF:FF:E0:00:00:00)

38. *maxEthertype_value*
    Same syntax of *ethertype_value.* It indicates the upper bound of an EtherType range.

39. *maxdscp*
    Same syntax of *dscp.* It indicates the upper bound of a DSCP range.

40. *maxpri*
    Same syntax of *pri.* It indicates the upper bound of a PRI range.

41. *max_response_time*
    An integer value, measured in 0.1seconds, in the range [1 ... 255] and with default value=100.

42. *maxvlan_id*
    Same syntax of *vlan_id.* It indicates the upper bound of a VLAN ID range.

43. *mstp_instance*
    The MSTP instance identifier. An integer value in the range [1 ... 63].

44. *mstp_instance_set*
    An expression using integer values in the range [1 ... 63] and specific symbols for representing a set of MSTP instance value ranges. For instance 1-3&21 means that the values 1, 2, 3 and 21 are specified.

45. *mtu_value*
    An integer value, indicating the MTU/MRU in byte. MTU/MRU allowed and default values are listed in the relevant Alcatel-Lucent 1850 TSS-100 CT Operations Guide.

46. *naming*
    The following syntax is used for naming a resource to which a CLI command applies:

    rR**sr**S**sl**B**d**D**p**P , where:

R	Rack	1 7
S	Subrack	0 or 1 7
B	Board	0 or 1 63
D	Drawer	0 or 1 7
P	Port	0 or 1 1023

    Note 1: When a certain field is meaningless for naming a resource, this field is omitted in the *naming*. For 1850 TSS-100 R01.01, drawer is not supported and the value should always be 0 or can be omitted.

    Note 2: For commands that apply to a board, the *naming* must have rack, subrack, board, and drawer=port=0; for commands that apply to a port, the *naming* must have rack, subrack, board, and port.

47. *naming_set*
An expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

    r1**sr**1**sl**4-7&18**p**1-5
    means that the ports 1, 2, 3, 4 and 5 of the boards in slots 4, 5, 6, 7 and 18 are specified.

48. *naming_set_list*
A list of naming set as *naming_set#1* [,*naming_set#2 … ,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

    r1**sr**1**sl**3-6&18**p**1-3
    means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

    r1**sr**1**sl**7-9&19**p**4-6
    means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

    r1**sr**1**sl**3**d**0**p**1,**r**1**sr**1**sl**5**d**0**p**2
    means that the port 1 of the board in slot 3 and the port 2 of the board in slot 5 are specified.

49. *neighbor_router_timeout*
An integer value, measured in seconds, with default value=260.

50. *ne_pri*
An integer value, in the range [0 ... 65535], indicating the priority value associated with the Actor's NE.

51. *nelocation*
A string indicating the location of the node.

52. *ospfarea_index*
The ID of the corresponding OSPF area entry.

53. *pbs_value*
An integer number, in the range [0-min [64 MB, 256 * corresponding_CBS]] with 1 byte granularity.

54. *pcause*
A string representing a probable cause are in the Table 2D: on page 2-26.

55. *pir_value*
An integer number, in the range [3 kbit/s ... port line rate] with 1 kbit/s granularity.

56. *pkgversion*
It is a value in the form xx.xx.xx (for example, 02.11.00) where:

    - the first field represents the Major version
    - the second field represents the Minor version
    - the third field represents the Maintenance version

57. *port_lnkaggpri*
Link Aggregation port priority (2 byte). An integer value in the range [0 ... 255] with default value=128.

58. *port_path_cost*
    The port path cost. Its value depends on the link speed of the port. For examle, if the link speed of the port is Mb/s, *port_path_cost*= an integer value in the range [1 ... 200 000 000] and default value=20 000 000.

59. *port_pri*
    Writable portion of the port identifier (the first 4 bit of 2 byte). An integer value in the range [0 ... 240] with granularity 16 and default value=128.

60. *pri*
    An integer value in the range [0 ... 7], indicating the Priority (or the lower bound of a PRI range).

61. *pri_set*
    An expression using integer values in the range [0 ... 7], and specific symbols for representing a set of PRI value ranges which are associated to green in that color profile.
    For instance 0-3&5 means that the PRI values 0, 1, 2, 3 and 5 are associated to green in that color profile.

62. *priyellow*
    An integer value in the range [0 ... 7], indicating the Priority of the yellow frames.

63. *profile*
    The list of network functionalities enabled on the NE, in the set: ‘sdh’, ‘wdm’, ‘eth’, ‘mpls’ and ‘cp’.

64. *ratelimited_value*
    The maximum allowed rate, measured in Kbit/s, configured on GFP/LAPS ports.

65. *region_revision_level*
    The MSTP region revision level. An integer value in the range [0 ... 65535].

66. *reporting_interval*
    An integer value, measured in seconds, with default value=60.

67. *resptimeout*
    An integer number, measured in seconds, in the range [0 ... 3600].

68. *router_timeout*
    An integer value, measured in seconds, with default value=260.

69. *severity*
    The associated severity in the set: ‘critical’, ‘major’, ‘minor’, ‘warning’ and ‘indeterminate’.

70. *transportPortNumber*
    An integer number.

71. *user_login*
    A string representing the user login.

72. *user_profile*
    The security user profile, includig: ‘conf’, ‘netadmin’, ‘prov’, ‘read’, ‘sec’, ‘debug’.

73. *vlan_id*
    An integer value in the set [1 ... 4094], indicating the VID (or the lower bound of a VLAN ID range).

74. *vlan_set*
    An expression using integer values in the range [1 ... 4094] and specific symbols for representing a set of VLAN value ranges.
    For instance 100-103&2555 means that the VLAN values 100, 101, 102, 103 and 2555 are specified.

75. *yy:mm:dd*
    Year, an integer value in the range [1 ... 99]; month, an integer value in the range [1 ... 12]; day, an integer value in the range [1 ... 31].

2.8.2 List of indexes defined by user

The following indexes (*xxx_userlabel*) are ASCII strings defined by the Operator for indicating specific resources inside CLI commands:

1. *acl_userlabel*
2. *alarmprofile_userlabel*
3. *asap_userlabel*
4. *colorprof_userlabel*
5. *extpoint_userlabel*
6. *flow_userlabel*
7. *flowgroup_userlabel*
8. *lag_userlabel*
9. *ne_userlabel*
10. *trafficdescriptor_userlabel*
11. *vlanprof_userlabel*
12. *vlanprotprof_userlabel.*

Table 2C: Bit Mapping

Protocol Description	MAC Address	Bit
Data Frames	--	0
Customer BPDU (STP, RSTP, MSTP)	01-80-C2-00-00-00	1
Provider BPDU (STP, RSTP, MSTP)	01-80-C2-00-00-08	2
Slow Protocols	01-80-C2-00-00-02	3
802.1X PAE	01-80-C2-00-00-03	4
Reserved for future MAC applications	01-80-C2-00-00-04	5
Reserved for future MAC applications	01-80-C2-00-00-05	6
Reserved for future bridge applications	01-80-C2-00-00-06	7
Reserved for future bridge applications	01-80-C2-00-00-07	7
Reserved for future bridge applications	01-80-C2-00-00-09	9
Reserved for future bridge applications	01-80-C2-00-00-0A	10
Reserved for future Provider bridge operations	01-80-C2-00-00-0B	11
Reserved for future Provider bridge operations	01-80-C2-00-00-0C	12
Provider GVRP	01-80-C2-00-00-0D	13
Reserved for future Customer bridge operations	01-80-C2-00-00-0E	14
Reserved for future Customer bridge operations	01-80-C2-00-00-0F	15
Bridge Management	01-80-C2-00-00-10	16
Customer GMRP	01-80-C2-00-00-20	17
Customer GARP	01-80-C2-00-00-21	18
Reserved for future GARP applications	01-80-C2-00-00-22 to 01-80-C2-00-00-2F	19 to 32

Table 2D: Alarm and Cause Relationship

Alarm	***pcause***
Card Fail	rup
Card Mismatch	rutm
Card Out	rum
Unconfigured Equipment	uep
OR Battery Failure	batteryfail
Fuse Broken	fusebroken
SLC Unreachable	icp
LDC Unreachable	icp
LAN Alarm	lanfailure
Software Mismatch	versionmismatch
Excessive Environmental Temperature	excessiveenvironmentaltemperature
Link Failure	receiverfailure
Housekeeping not available	housekeepingalarm
PLM	plm
TSF	tsf
TSD / DEG	sdhconcdegrade
LOS	los
LOF	lof
CSF	csf
EXM	extensionheadermismatch
UPM	userpayloadmismatch
URU	uru
UAT	uat
TCA	tca

2.9 Conventions Used in CLI Command Definition

The following conventions are used in CLI command definitions.

1 Several commands require that the operator define a user label. The node must assure that user labels for a specified resource are unambiguous.

2 Operator can define user labels containing blank characters. In this case, the string must be in inverted commas (for example, **ext point in** *2* **user label "***physical LOS housekeeping"*).

3 The ASAP configuration commands require operator to enter the ASAP user label instead of the ASAP index, for simplicity sake.

4 In some commands, the bridge port is referenced by the bridge port number.

5 When an optional value in a command is not provided by the operator, the corresponding currently configured value remains unchanged (if no value had been previously configured the default value applies). In the commands where a different behavior is applied, it is explicitly stated.

6 If only one resource is involved, then CLI command is atomic (that is, if any command parameter setting fails, the entire command is rejected). If two or more resources are involved, then it is possible that some resources will be modified successfully and some resources will not be modified because a setting fails.

7 For commands which set parameters that are modifiable only when a certain resource is administratively disabled, it is required to check if this condition is satisfied and, if not, to reject the command advising properly the operator.

8 If a CLI command fails, the error code currently defined for the corresponding management function failure has to be reported to the operator.

9 Any parameter that is retrievable by a **show** command but that is not significant in a specific scenario in which the command has been applied, is neglected in the show report.

10 The show command must support the optional [more] parameter at the end of the command for showing information by 24 rows per page. For simplicity sake, [more] is not repeated in all show commands along the document.

11 Some commands requires a confirmation for allowing operator an after-editing verification.

12 CLI is allowed to perform 'set' operations only if it has granted local access control.
There is one exception: the set operation for requesting the access control itself.

13 When the NE is able to support both "condition" and "change" management function of a certain parameter, the command, defined in this document for setting that parameter, refers always to the "change" management function. This policy has to be applied independent of which of the two management function ("change" or "condition") is referred in the command reference section.

2.10 Functions Not Supported by CLI

The CLI is expected to perform most of the CT functionalities. The CLI is not required to be used for managing the following functionalities:

- Support Domain:
  - Event Reporting: the CLI does not manage spontaneous notifications from the NE;
  - PM Filtering: the CLI does not manage own filtering criteria for retrieving History Data from the NE;
  - MIB Backup/Restore and SW download: this topics are for future releases.

  Note: for managing by CLI the functionalities about file transfer between the NE and a server, issues about the used transfer protocol (802.1e, FTP, ...) have to be deeply analyzed.
- C&R domain:
  - Tunnel management: this functionality is not required in the NE.

CLI does not cover also the following management functions:

- Support Domain:
  - Condition of Configuration Mode
  - Inhibit/Allow Logging

2.11 Answers to CLI commands

The following examples are referred to some answers from the equipment when a CLI command is forwarded and are relevant or to correct/wrong commands or to incomplete commands.

Note: some CLI commands do not get answers.

```
>> message: successful completed command !!
```

```
>> message: waiting - command in progress
>> error: timeout - not executed command
```

```
>> warning: already present value for AdminStatus of r1sr1sl6d1p1
>> warning: already present value for AdminStatus of r1sr1sl6d1p2
>> warning: already present value for AdminStatus of r1sr1sl6d1p3
>> warning: already present value for AdminStatus of r1sr1sl6d1p4
```

```
>> error: bad command
```

```
>> error: missing parameter
```

```
>> error: invalid parameters number
```

```
Error: Out of range. Valid range is: dynamic,blocked,forwarding
```

```
>> error: db writing error for Stp BridgeHelloTime
>> message: partially completed command
```

2.12 Accessing the Craft Terminal

The Alcatel-Lucent 1850 TSS-100 Release 01.01 does not support access to the CLI via the craft terminal interface. Future releases of this product will support this function.

3. Equipment Management Commands

3.1 Available Commands

A summary of available commands is listed here:

```
eqpt position naming_set_list show type
eqpt position naming_set_list show asap
eqpt position naming_set_list show allowedeqpt
eqpt position naming_set_list show info
eqpt position naming_set_list show ri
eqpt show allpositions
eqpt show nename
eqpt show cliversion
eqpt show pdaversion
```

eqpt position *naming_set_list* show type

Description

This command provides the following information about an equipment position:

- the position of the part (board, drawer or port)
- the expected equipment type (acronym or empty)

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2 …,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows the output of this command.

```
Cli > eqpt position r1sr1sl3 show type
.1.1.3.0.0 - expected eqpt type: PP10G
```

eqpt position *naming_set_list* show asap

Description

This command provides the following information about an equipment position:

- the Label Key
- the status (active, ...)
- the associated ASAP User label

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2 …,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following shows an example of Alarm Severity Profile for slot 13:

```
Cli > eqpt position r1sr1s13 show asap
LabelKey  Status      Alarm Severity Profile UserLabel
--------------------------------------------------------------------------
@1        active (1)     'no alarm'
@2        active (1)     'primary alarms'
@3        active (1)     'path alarms'
@4        active (1)     'all arms'
```

eqpt position *naming_set_list* show allowedeqpt

Description

This command shows the allowed equipment types for an equipment position.

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2 …,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows the allowed equipment types available for a specific position (slot 13):

```
Cli> eqpt position r1sr1sl3 show allowedeqpt

r1sr1sl3 - allowed equipment Type: EMPTY
r1sr1sl3 - allowed equipment Type: PP10G
```

eqpt position *naming_set_list* show info

Description

This command provides the following information about an equipment position:

- the expected equipment type identification
- the expected equipment type acronym of the board
- the actual equipment type (empty or acronym)
- the equipment status (administrative state: in service, out of service, ...)
- the associated ASAP Index
- the associated ASAP User label

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2 …,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows all information about a specific equipped board (slot 6):

```
Cli:ADMIN (eqpt) > position r1sr1sl6 show info

Show Equipment Info r1sr1sl6
----------------------------
expected eqpt type Id: 325
expected eqpt type:PP10G
actual eqpt type: EMPTY
equipment status: inService (1)
Asap Index: 2
Alarm Severity Profile UserLabel: 'primary alarms'
```

eqpt position *naming_set_list* show ri

Description

This command provides the Remote Inventory (RI) data of an item in an equipment position.

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2 …,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

In the following example, the fields relevant to the RI information (Status, Mnemonic, CLEI code, P/N, etc.) for a specific equipped board (slot 6) are displayed:

```
Cli> eqpt position r1sr1sl3 show ri

Show Remote Inventory Info r1sr1sl3
-----------------------------------
remote Inventory Status: available (1)
remote Inventory Company Id: PP10G 111
remote Inventory Mnemonic: PP10G
remote Inventory CLEI Code:  222
remote Inventory Part Number:
remote Inventory Software Part Number: 333
remote Inventory Factory Id: 444
remote Inventory Serial Number: 555
remote Inventory date Id:
remote Inventory date:
remote Inventory Customer Field:
```

eqpt show allpositions

Description

This command shows the expected equipment type for all slot positions (boards, drawers and ports).
This command has the same objective of command “eqpt position naming_set_list show type”, but applied to all NE slot positions (for practical use).

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows the information about all the Alcatel-Lucent 1850 TSS-100 equipment slot positions,specifically:

- position (referred to board or drawer or port)
- expected equipment type mnemonic (acronym, unknown or empty)
- actual equipment type (acronym or empty)
- equipment status (administrative state: in service, out of service, ...).

(example on the next page)

Position	expected eqpt type	actual eqpt type	equipment status
r1	RACK	RACK	inService (1)
r1sr1	S100F	S100F	inService (1)
r1sr1sl1	EC100	EC100	inService (1)
r1sr1sl2	EMPTY		inService (1)
r1sr1sl3	PP10G	PP10G	inService (1)
r1sr1sl3d0p1	EMPTY		inService (1)
r1sr1sl3d0p2	EMPTY		inService (1)
r1sr1sl3d0p3	EMPTY		inService (1)
r1sr1sl3d0p4	EMPTY		inService (1)
r1sr1sl4	EMPTY		inService (1)
r1sr1sl5	UNKNOWN	8PSO	inService (1)
r1sr1sl5d1	EMPTY		inService (1)
r1sr1sl5d2	EMPTY		inService (1)
r1sr1sl5d3	EMPTY		inService (1)
r1sr1sl5d4	UNKNOWN	SS-41	inService (1)
r1sr1sl5d5	EMPTY		inService (1)
r1sr1sl5d6	EMPTY		inService (1)
r1sr1sl5d7	EMPTY		inService (1)
r1sr1sl5	EMPTY		inService (1)
r1sr1sl6	EMPTY		inService (1)
r1sr1sl7	EMPTY		inService (1)
r1sr1sl8	EMPTY		inService (1)
r1sr1sl9	MT100	MT100	inService (1)
r1sr1sl10	EMPTY		inService (1)
r1sr1sl11	EMPTY		inService (1)
r1sr1sl12	EMPTY		inService (1)
r1sr1sl13	EMPTY		inService (1)
r1sr1sl14	EMPTY		inService (1)
r1sr1sl15	UNKNOWN	4P2G5SO	inService (1)
r1sr1sl15d1	EMPTY		inService (1)
r1sr1sl15d2	UNKNOWN	SI-161	inService (1)
r1sr1sl15d3	EMPTY		inService (1)
r1sr1sl15d4	UNKNOWN	SI-161	inService (1)
r1sr1sl16	UNKNOWN	4P2G5SO	inService (1)
r1sr1sl16d1	EMPTY		inService (1)
r1sr1sl16d2	UNKNOWN	SI-161	inService (1)
r1sr1sl16d3	EMPTY		inService (1)
r1sr1sl16d4	UNKNOWN	SI-161	inService (1)
r1sr1sl17	POW100	UNKNOWNEQPTTYPE	inService (1)
r1sr1sl18	POW100	UNKNOWNEQPTTYPE	inService (1)
r1sr1sl19	FAN100	FAN100	inService (1)
r1sr1sl21	TBUS100F	UNKNOWNEQPTTYPE	inService (1)
r1sr1sl25	PE1X10GE	PE1X10GE	inService (1)
r1sr1sl25d0p1	10GB	10GB	inService (1)
r1sr1sl26	EMPTY	PE8XGE	inService (1)
r1sr1sl27	EMPTY		inService (1)
r1sr1sl28	EMPTY		inService (1)

eqpt show nename

Description

This command displays the Alcatel-Lucent 1850 TSS-100 Network Element name.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows the information regarding the Alcatel-Lucent 1850 TSS-100 equipment name and associated equipment release.

```
Cli:ADMIN > eqpt show nename
NE Name: ne1850tss-100%1.1
Cli:ADMIN > _
```

eqpt show cliversion

Description

This command shows the Alcatel-Lucent 1850 TSS-100 Network Element version of the CLI.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows the CLI version.

```
Cli> eqpt show cliversion
ALCATEL-LUCENT (C) PDA-MASTER, CLI VERSION: 1.0
```

eqpt show pdaversion

Description

This command displays the Alcatel-Lucent 1850 TSS-100 Network Element version of the software currently available.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows the current software.

```
Cli> eqpt show pdaversion
ALCATEL-LUCENT (C) PDA-MASTER, SW VERSION: 01.01.21
ALCATEL-LUCENT (C) PDA-MASTER, SRC LABEL: LIV_DATA_1850TSS100_V01.01.00
DROP.K.2_GE
ALCATEL-LUCENT (C) PDA-MASTER, BUILD: 1
```

4. Ethernet Physical, GFP and LAPS Management Commands

This chapter includes the following Ethernet command sets:

- 4.1 General Interface Management
- 4.2 Ethernet Physical Management
- 4.3 GFP(Generic Framing Procedure) and LAPS (Link Access Procedure for SDH) Management

4.1 General Interface Management

A summary of available commands is listed here:

```
interface show [naming_set_list]
interface trafficshow [naming_set_list]
```

interface show [*naming_set_list*]

Description

This command retrieves information about the configured interfaces:

- the interface position (port)
- the interface type
- the client type
- the administrative status
- the traffic port enabled

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows all interfaces configured in the equipment.

(Example on following page.)

```
Cli> interface show

Port              InterfaceType   ClientType   AdminStatus
================================================================
r1sr1sl3d0p101      gfp (221)       ------      down (2)
                  rem eth (6)      ets (1)      down (2)
r1sr1sl5d0p101      gfp (221)       ------        up (1)
                  rem eth (6)      ets (1)        up (1)
r1sr1sl5d0p102      gfp (221)       ------        up (1)
                  rem eth (6)      ets (1)        up (1)
r1sr1sl5d0p103      gfp (221)       ------        up (1)
                  rem eth (6)      ets (1)        up (1)
r1sr1sl28d0p1         eth (6)      ets (1)        up (1)
r1sr1sl28d0p2         eth (6)      ets (1)        up (1)
r1sr1sl28d0p4         eth (6)      ets (1)      down (2)
r1sr1sl28d0p6         eth (6)      ets (1)      down (2)
r1sr1sl28d0p7         eth (6)      ets (1         up (1)
r1sr1sl28d0p8         eth (6)      ets (1)      down (2)
```

interface trafficshow [*naming_set_list*]

Description

This command retrieves the following information of the configured interfaces:

- the interface position (port)
- the administrative status
- the traffic port enabled
- the operational status
- the line rate (speed)
- the traffic rate to which transmission is limited (for remote Ethernet port only)
- the ingress port admitted Flooding Rate (i.e. the threshold value of received admitted bandwidth generating flooding traffic, on this ingress interface)

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows all configured interface information for a specified port.

(Example on following page.)

```
Cli> interface trafficshow r1sr1sl28

Port               AdminStatus OperStatus   Speed   LimitedSpeed
================================================================
r1sr1sl28d0p1        up (1)      down (2)    1000000            0
r1sr1sl28d0p2        up (1)        up (1)    1000000            0
r1sr1sl28d0p       down (2)      down (2)    1000000            0
r1sr1sl28d0p6      down (2)      down (2)    1000000            0
r1sr1sl28d0p7        up (1)      down (2)    1000000            0
r1sr1sl28d0p8      down (2)      down (2)      10000            0
```

4.2 Ethernet Physical Management

A summary of available commands is listed here:

interface position naming_set_list localeth defaulttype {10 | 100 | 1000 }

interface position naming_set_list localeth show mauinfo

interface position naming_set_list localeth autoneg {enable | disable}

interface position naming_set_list localeth autoneg restart

interface position naming_set_list localeth autoneg advertisedcapability [10 | 100 | 1000 | 10&100 | 10&100&1000] [nopause | asympause | sympause | asym&sympause]

interface position naming_set_list localeth show autoneg

interface position naming_set_list localeth loopback {line | internal} {enable | disable}

interface position naming_set_list localeth show loopback

interface position *naming_set_list* localeth defaulttype {10 | 100 | 1000 }

Description

This command allows a user to set the default MAU type for interface. The 10ge-xx values are for 10GE interfaces.

Note: in the current release this command applies only to electrical FE, electrical GE and 10GE interfaces; furthermore the Alcatel-Lucent 1850 TSS-100 equipment supports only:

- Full-Duplex mode;
- one allowed type for optical FE (100BaseFX-FD) and optical GE (1000BaseX-FD) interfaces.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

```
Cli > interface position r1sr1sl28d0p8 localeth defaulttype  10

62 - message: successful completed command !!
```

interface position *naming_set_list* localeth show mauinfo

Description

This command allows a user to retrieve general MAU information:

- MAU status
- operational status
- jack connector type (fiber)
- jabber status (it is meaningful only for 10BaseT)
- allowed MAU types
- MAU defaut type
- autonegotiation supported
- optical channel type (B&W or Colored)
- optical wavelength (lambda)
- optical channel spacing
- ASAP pointer

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following shows an example of MAU information relevant to a specified port.

(Example on the next page)

```
Cli > interface position r1sr1sl28d0p8 localeth show mauinfo

Show Mau Info of port r1sr1sl28d0p8
-----------------------------------
MauStatus: shutdown (5)
MauMediaAvailable: other (1)
MauJabberState: other (1)
MauTypeListBits: 001080020000[b10baseTFD (11)][b100baseTXFD (16)][b1000baseTFD
MauDefaultType: dot3MauType10BaseTFD (1.3.6.1.2.1.26.4.11)
MauAutoNegSupported: true (1)
MauExtOpticalChannelType: blackWhite (1)
MauExtOpticalChannelLambda: 0
MauExtOpticalChannelSpacing: 0
MauExtAsapIndex: ------
JackType: rj45 (2)
```

interface position *naming_set_list* localeth autoneg {enable | disable}

Description

This command allows a user to enable or disable the Autonegotiation on an interface MAU.

Note: in the current release, this command does not apply to *Optical FE* and *10GE* interfaces, since they do not support autonegotiation, and to *Electrical 1GE* interfaces, since they support mandatory autonegotiation. It applies to *Electrical FE* and *optical 1GE* interfaces that support configurable autonegotiation.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows the output for a specified port:

```
Cli> interface position r1sr1sl28d0p8 localeth autoneg enable

62 - message: successful completed command !!
```

Refer to the example of "interface position naming_set_list localeth show autoneg" command to see the relevant status after the operation.

interface position *naming_set_list* localeth autoneg restart

Description

This command allows a user to restart the Autonegotiation.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows the command output relevant to a specified port:

```
Cli> interface  position r1sr1sl28d0p8 localeth autoneg restart

62 - message: successful completed command !!
```

interface position *naming_set_list* localeth autoneg advertisedcapability [10 | 100 | 1000 | 10&100 | 10&100&1000] [nopause | asympause | sympause | asym&sympause]

Description

This command allows a user to set the autonegotiation capability to be advertised. For example:

- the MAU type;
- the PAUSE frame handling capability; each possible value corresponds to a defined combination of capability bits from 8 to 11:
  - 0000 for ‘no pause’
  - 1100 for ‘asymmectric pause’ (default value)
  - 1010 for ‘symmectric pause’
  - 1111 for ‘asymmetric and symmectric pause’

Note: in the current release Optical GE interfaces advertise only mau type = 1000BaseX-FD.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows the data for a specific port (interface 1 of drawer 1 of board in slot 6):

```
Cli:ADMIN > interface position r1sr1sl6d1p1 localeth autoneg advertisedcapability
 .. message: successful completed command !!
```

interface position *naming_set_list* localeth show autoneg

Description

This command reports the following regarding autonegotiation:

- whether or not the autonegotiation is enabled on the MAU;
- the current status of the autonegotiation process;
- autonegotiation capabilities supported by MAU;
- autonegotiation capabilities advertised by MAU;
- the autonegotiation capabilities advertised by the remote end. Reported capabilities are considered meaningful only after the autonegotiation has been completed.

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2…*,*naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows information relevant to a specific port (interface 1 of drawer 1 of board in slot 8):

```
Cli:ADMIN (interface) > position r1sr1sl8d1p1 localeth show autoneg

Show Local Ethernet AutoNeg Interface Info - r1sr1sl8d1p1
---------------------------------------------------------
Mau Auto Neg Config: other (1)
Mau Auto Neg Admin Status: enabled (1)
Mau Auto Neg Capability Bits: 00C0 [bfdxPause (8)] [bfdxAPause (9)]
Mau Auto Neg CapAdvertised Bits: 0000
Mau Auto Neg CapReceived Bits: 0000

Cli:ADMIN (interface) > _
```

interface position *naming_set_list* localeth loopback {line | internal} {enable | disable}

Description

This command allows a user to enable/disable a Line Loopback or an Internal Loopback on interface.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

In the following example, two commands have been presented:

- the first is relevant to disable an internal loopback on a specific port (interface 1 of drawer 1 of board in slot 6);
- the second is relevant to disable a line loopback on the same port.

```
Cli:ADMIN (interface) > position r1sr1sl6d1p1 localeth loopback internal disable
CLI msg: warning: already present value r1sr1sl6d1p1

Cli:ADMIN (interface) > position r1sr1sl6d1p1 localeth loopback line disable
```

interface position *naming_set_list* localeth show loopback

Description

This command retrieves information about loopbacks. It will report if a loopback is enabled and which type is enabled.

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows the loopback status for a specific port (interface 1 of drawer 1 of board in slot 8):

```
Cli:ADMIN (interface) > position r1sr1sl8d1p1 localeth show loopback

Show Local Ethernet Interface Loopback - r1sr1sl8d1p1
-----------------------------------------------------
Internal Loopback: false (2)
Line Loopback: false (2)

Cli:ADMIN (interface) > _
```

4.3 GFP and LAPS Management

A summary of available commands is listed here:

`interface position naming_set_list remoteeth ratelimited ratelimited_value`

`interface position naming_set_list remoteeth asap asap_userlabel`

`interface position naming_set_list remoteeth show mappinginfo`

interface position *naming_set_list* remoteeth ratelimited *ratelimited_value*

Description

This command allows a user to set the raffic rate to which transmission is limited.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

ratelimited_value

The maximum allowed rate, measured in Kb/s, configured on GFP/LAPS ports.

Example

The following example shows the output of this command.

```
Cli> interface position r1sr1sl5d0p103 remoteeth ratelimited 200

62 - message: successful completed command !!
```

interface position *naming_set_list* remoteeth asap *asap_userlabel*

Description

This command allows a user to change the ASAP pointer associated to the mapping layer.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

asap_userlabel

An ASCII string defined by the Operator.

Example

```
Cli > interface position r1sr1sl5d0p103 remoteeth asap 'all alarms'

62 - message: successful completed command !!
```

interface position *naming_set_list* remoteeth show mappinginfo

Description

This command allows a user to retrieve the following information:

- format (only for GFP)
- type of GFP header as inferred by EXI field (only for GFP)
- interface status
- interface configuration
- server layer
- SDH configuration
- Signal label configuration
- Equipment-non-specific Signal Label sending control
- ASAP pointer
- CSF Transmit capability (only for GFP)
- FCS support (only for GFP)
- Received GFP Header client type as inferred from UPI field value (only for GFP)
- Presence of GFP FCS in received frames as inferred from PFI bit (only for GFP)
- flag insertion (only for LAPS)
- Erroneus frames handling mode (only for LAPS).

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following shows an example of Ethernet Mapping Interface information relevant to a specific port (interface 1 of drawer 2 of board in slot 6):

```
Cli> interface position r1sr1sl5d0p103 remoteeth show mappinginfo

Show Remote Ethernet Interface Info of port r1sr1sl5d0p103
------------------------------------------------------------
AdminStatus: down (2)
OperStatus: down (2)
LastChange: 2007-20-09 10:18:37
InterfaceType: gfp (221)
Speed: 0
LimitedSpeed: 200
HighSpeed: 0
UnderlieLayer: 6
Sdh If Type: gfp (221)
Sdh If Speed: 0
Sdh If Underlie Layer: vconc (6)
Sdh If Vc Type: vc3 (3)
Sdh If Curr Speed: 0
If Tx SL: 27
If Exp SL: 27
If Rx SL: 0
SL Send Control: automatic (0)
GFP Conf Encaps:
GFP Conf Rx Type Header:
GFPConfCsf: disabled (0)
GFP Conf Fcs: disable (2)
GFP Conf Rx Client Type:
GFP Conf Rx Fcs:
AsapIndex: 4
Alarm Severity Profile UserLabel:‘all alarms’
```

5. Ethernet Port Management Commands

This chapter includes the following Ethernet port command sets:

- 5.1 Ethernet over MAU (Medium Attachment Unit)
- 5.1 Ethernet over GFP (Generic Framing Prcedure) and Ethernet over (Link Access Procedure for SDH).

5.1 ETH over MAU

A summary of available commands is listed here:

```
interface position naming_set_list localeth {activate | deactivate}
interface position naming_set_list localeth maxmtu mtu_value
interface position naming_set_list localeth defaultflowcontrol {nopause |
    asympause | sympause}
interface position naming_set_list localeth admittedfractionalrate
    admitted_fractional_rate
interface position naming_set_list localeth ethasap asap_userlabel
interface position naming_set_list localeth show ethinfo
```

interface position *naming_set_list* localeth {activate | deactivate}

Description

This command allows a user to create and administratively enable or disable a Ethernet Local port: MAU, Ety, Ety/Eth, EFC, Eth_T layers.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

In the following examples show the output of the command:

```
Cli:> interface position r1sr1sl28d0p8 localeth activate

62 - message: successful completed command !!
```

```
Cli:> interface position r1sr1sl28d0p8 localeth deactivate

62 - message: successful completed command !!
```

Note: the deactivation of the local interface is necessary to set all the following commands.

interface position *naming_set_list* localeth maxmtu *mtu_value*

Description

This command allows a user to configure the port maximum MTU/MRU (local), replacing the default MTU/MRU value.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

mtu_value

An integer value, indicating the MTU/MRU in byte. MTU/MRU allowed and default values are listed in the Alcatel-Lucent 1850 TSS-100 TL1 Operations Guide, Volume 1.

Example

The following example shows data relevant to the specified port :

```
Cli:> interface position r1sr1sl26d0p1 localeth maxmtu 500

62 - message: successful completed command !!
```

interface position *naming_set_list* localeth defaultflowcontrol {nopause | asympause | sympause}

Description

This command allows a user to set the Ethernet PAUSE frame handling capability to be applied when autonegotiation is disabled.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2…*,*naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows output for a specified port:

```
Cli > interface position r1sr1sl28d0p8 localeth defaultflowcontrol asympause

62 - message: successful completed command !!
```

interface position *naming_set_list* localeth admittedfractionalrate *admitted_fractional_rate*

Description

This command allows a user to set the admitted fractional rate on an Ethernet port, for triggering pause frame generation.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

admitted_fractional_rate

An integer value, indicating in Kbit/s the threshold value of the admitted bandwidth on the interface; it is used for triggering PAUSE frames generation.

Example

The following example shows output for a specific port:

```
Cli > interface position r1sr1sl28d0p8 localeth admittedfractionalrate 200

62 - message: successful completed command !!
```

interface position *naming_set_list* localeth ethasap *asap_userlabel*

Description

This command allows a user to change the ASAP pointer associated to the Ethernet layer.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

asap_userlabel

An ASCII string defined by the Operator.

Example

```
Cli > interface position r1sr1sl28d0p8 localeth ethasap 'all alarms'

62 - message: successful completed command !!
```

interface position *naming_set_list* localeth show ethinfo

Description

This command provides the following local Ethernet port information:

- the administrative status
- the operative status
- the system time at which the port has entered the current operational state
- the interface type
- the line rate
- the available bandwidth
- the interface maximum MTU/MRU
- the interface mode
- the Ethernet local MAC Address (if local Mac Address is unavailable, it is set to 00:00:00:00:00:00)
- if the interface has a physical connector
- the handling of the incoming errored Ethernet frames
- the Ethernet port client layer
- the automatically assigned bridge port number
- the PAUSE frame handling capability to be applied when autonegotiation is disabled
- the admitted fractional rate
- the encapsulation method used by the local Ethernet entity (for example, ethernetV2, llc-snap)
- the ASAP associated to the Ethernet port.

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows all local Ethernet interface information relevant to a specified port:

```
Cli > interface position r1sr1sl28d0p8 localeth show ethinfo

Show Local Ethernet Interface Info of port r1sr1sl28d0p8
------------------------------------------------------------
AdminStatus: down (2)
OperStatus: down (2)
LastChange: 2007-05-30 15:37:23
InterfaceType: eth (6)
Speed: 10000
AvailableBandwidth: 10000
Mtu: 1574
PromiscuousMode: true (1)
PhysAddress:
ConnectorPresent: true (1)
FCSDiscardErroredFrames: true (1)
ClientType: ets (1)
BridgeBasePort: 0
DefaultPause: asymmetric-PAUSE (1)
AdmittedFractionalRate: 200
ConfEncaps: ethernetV2 (1)
AsapIndex: 4
Alarm Severity Profile UserLabel: 'all alarms'
```

5.2 ETH over GFP, ETH over LAPS

A summary of available commands is listed here:

`interface position naming_set_list remoteeth {activate | deactivate}`

`interface position naming_set_list remoteeth maxmtu mtu_value`

`interface position naming_set_list remoteeth show ethinfo`

interface position *naming_set_list* remoteeth {activate | deactivate}

Description

This command allows a user to administratively enable/disable an Ethernet remote port on either GFP or LAPS port.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following shows the output of this command:

```
Cli> interface position r1sr1sl5d0p103 remoteeth activate

62 - message: successful completed command !!
```

Note: the deactivation of the remote interface is necessary to set all the following commands.

interface position *naming_set_list* remoteeth maxmtu *mtu_value*

Description

This command allows a user to configure the port maximum MTU/MRU (remote), replacing the default MTU/MRU value.

This command is assigned the PROV privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [*,naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

mtu_value

An integer value, indicating the MTU/MRU in byte. MTU/MRU allowed and default values are listed in the relevant Alcatel-Lucent 1850 TSS-100 TL1 Operations Guide, Volume 1.

Example

The following example shows output relevant to the specified port:

```
Cli> interface position r1sr1sl3d0p101 remoteeth maxmtu 1234

62 - message: successful completed command !!
```

interface position *naming_set_list* remoteeth show ethinfo

Description

This command displays the following Ethernet port information (remote):

- the administrative status
- the operative status
- the system time at which the port has entered the current operational state
- the interface type
- the line rate
- the available bandwidth
- the interface maximum MTU/MRU
- the interface mode
- the Ethernet local MAC Address (if local Mac Address is unavailable, it is set to 00:00:00:00:00:00)
- if the interface has a physical connector
- the handling of the incoming errored Ethernet frames
- the Ethernet port client layer
- the automatically assigned bridge port number

This command is assigned the READ privilege.

Syntax Definitions

naming_set_list

A list of naming set as *naming_set#1* [,*naming_set#2…,naming_set#n*] is an expression using integer values in the range [1 ... 4094], ampersand (&) and hyphen (-) for representing board, drawer or port value ranges. For example:

r1**sr**1**sl**3-6&18**p**1-3
means that the ports 1, 2 and 3 of the boards in slots 3, 4, 5, 6 and 18

r1**sr**1**sl**7-9&19**p**4-6
means that the ports 4, 5, 6 of the boards in slots 7, 8, 9 and 19 are specified.

Example

The following example shows remote Ethernet interface information relevant to the specified port:

(example in the next page)

```
Cli> interface position r1sr1sl3d0p101 remoteeth show ethinfo

Show Remote Ethernet Interface Info of port r1sr1sl3d0p101
------------------------------------------------------------
AdminStatus: down (2)
OperStatus: down (2)
LastChange: 2007-07-19 11:49:33
InterfaceType: rem eth (6)
Speed: 0
AvailableBandwidth: 0
Mtu: 1234
PromiscuousMode: true (1)
PhysAddress:
ConnectorPresent: false (2)
FCSDiscardErroredFrames: true (1)
ClientType: ets (1)
BridgeBasePort: 0
```

6. Services Management Commands

6.1 ETS-to-ETS Bidirectional Transparent Mapping (Port-to-Port Configuration)

A summary of available commands is listed here:

```
portportbid activate flow_userlabel port1 naming port2 naming
portportbid delete flow_userlabel
portportbid show [flow_userlabel]
```

portportbid activate *flow_userlabel* port1 *naming* port2 *naming*

Description

This command allows a user to create, configure, and activate a port-to-port configuration. This means a local ETS InFlow/OutFlow is transparently crossconnected to an ETS InFlow/OutFlow in such a way that all traffic incoming from one ETS is transmitted to the other one.

Configuration includes:

- Classifier definition: default classifier is applied (for example, dont care of VLAN, PRI or DSCP) values. No other classifier can be added by operator.
- Traffic descriptor association: BE NULL traffic descriptor is applied.
- Management of the received L2 Control Frames: all control frames are tunneled.
- Policy management: it is disabled.
- Color profile association: default color profile (drop precedence=green for any priority) is applied.
- VLAN pop enabling/disabling: it is disabled.
- VLAN push configuration: it is disabled by default.
- ETS crossconnection set-up.

This command is assigned the PROV privilege.

Syntax Definitions

naming

The following syntax is used for naming a resource to which a CLI command applies:

rR**sr**S**sl**B**d**D**p**P , where:

R	Rack	1 7
S	Subrack	0 or 1 7
B	Board	0 or 1 63
D	Drawer	0 or 1 7
P	Port	0 or 1 1023

Note 1: When a certain field is meaningless for naming a resource, this field is omitted in the *naming*. For 1850 TSS-100 R01.01, drawer is not supported and the value should always be 0 or can be omitted.

Note 2: For commands that apply to a board, the *naming* must have rack, subrack, board, and drawer=port=0; for commands that apply to a port, the *naming* must have rack, subrack, board, and port.

flow_userlabel

An ASCII string defined by the Operator.

Example

The following example shows the command completing the request:

```
Cli> portportbid activate Flow001 port1 r1sr1sl3d0p101 port2 r1sr1sl25d0p1

62 - message: successful completed command !!
```

portportbid delete *flow_userlabel*

Description

This command allows a user to delete the coupling of ETS InFlow/OutFlow and the transparent connection between them.

This command is assigned the PROV privilege.

Syntax Definitions

flow_userlabel
An ASCII string defined by the Operator.

Example

In the following example is shown the command relevant to the deletion:

```
Cli > portportbid delete Flow001

62 - message: successful completed command !!
```

portportbid show [*flow_userlabel*]

Description

This command allows a user to get the list of ETS InFlow/OutFlow couples that are transparently connected. This command alows users to get detailed information about a single couple, by specifying the corresponding flow user label.

This command is assigned the READ privilege.

Syntax Definitions

flow_userlabel

An ASCII string defined by the Operator.

Example

The following example shows the command reporting the relevant information:

```
Cli> portportbid show

LabelKey    Flow UserLabel     Flow Type         InFlow Port    OutFlow Port
================================================================================
@1.1.1         ''            portportbid (3)    r1sr1sl5d0p101  r1sr1sl28d0p1
@3.3.3         ''            portportbid (3)    r1sr1sl5d0p102  r1sr1sl28d0p2
```

7. Performance Monitoring Management Commands

7.1 Maintenance Measurement Collection

A summary of available commands is listed here:

pmmaint show port naming

pmmaint show port *naming*

Description

This command will permit a user to request the incoming and outgoing aggregate maintenance counters (type1), with the retrieving time.

This command is assigned the READ privilege.

Syntax Definitions

naming

The following syntax is used for naming a resource to which a CLI command applies:

rR**sr**S**sl**B**d**D**p**P , where:

R	Rack	1 7
S	Subrack	0 or 1 7
B	Board	0 or 1 63
D	Drawer	0 or 1 7
P	Port	0 or 1 1023

Note 1: When a certain field is meaningless for naming a resource, this field is omitted in the *naming*. For 1850 TSS-100 R01.01, drawer is not supported and the value should always be 0 or can be omitted.

Note 2: For commands that apply to a board, the *naming* must have rack, subrack, board, and drawer=port=0; for commands that apply to a port, the *naming* must have rack, subrack, board, and port.

Example

The following example shows information about the incoming and outgoing counters for a specified port:

(example in the next page)

```
Cli> pmmaint show port r1sr1sl28d0p8

Show Aggregate maintenance counters r1sr1sl28d0p8
-------------------------------------------------
Aggr Maint Rx TRCO: 0x0
Aggr Maint Rx TRCF: 0x0
Aggr Maint Rx TRSEF: 0x0
Aggr Maint Rx TDF: 0x0
Aggr Maint Rx Elapsed Time: 0 days,  0:46:50 (hr:min:sec)

Show Aggregate maintenance counters r1sr1sl28d0p8
-------------------------------------------------
Aggr Maint Tx TTO: 0x0
Aggr Maint Tx TTF: 0x0
Aggr Maint Tx TDF: 0x0
Aggr Maint Tx Elapsed Time: 0 days,  0:46:50 (hr:min:sec)
```

8. Support Management Commands

This chapter includes the following support management command sets:

- 8.1 Alarm list and Log management
- 8.2 Alarm profile management
- 8.3 Software package management
- 8.4 Agent management.

8.1 Alarm List and Log Management

A summary of available commands is listed here:

alarmlist [domain domain_name] [severity severity] [time [yy:mm:dd:]hh:mm:ss[- [yy:mm:dd:]hh:mm:ss]] [position naming]

alarmsynth [domain | severity]

log info

log alarm [domain domain_name] [severity severity] [time [yy:mm:dd:]hh:mm:ss[- [yy:mm:dd:]hh:mm:ss]] [position naming]

log event [time [yy:mm:dd:]hh:mm:ss[-[yy:mm:dd:]hh:mm:ss]] [position naming]

alarmlist [domain *domain_name*] [severity *severity*] [time *[yy:mm:dd:]hh:mm:ss[-[yy:mm:dd:]hh:mm:ss]*] [position *naming*]

Description

This command allows users to retrieve the current active Alarm List.

The user can configure the output by means of one or more combined optional parameters, which allow selection all alarms:

- of a specific domain
- with a specific severity value
- raised starting from a specific instant or within a specific time interval
- concerning a certain resource

This command is assigned the READ privilege.

Syntax Definitions

naming

The following syntax is used for naming a resource to which a CLI command applies:

rR**sr**S**sl**B**d**D**p**P , where:

R	Rack	1 7
S	Subrack	0 or 1 7
B	Board	0 or 1 63
D	Drawer	0 or 1 7
P	Port	0 or 1 1023

Note 1: When a certain field is meaningless for naming a resource, this field is omitted in the *naming*. For 1850 TSS-100 R01.01, drawer is not supported and the value should always be 0 or can be omitted.

Note 2: For commands that apply to a board, the *naming* must have rack, subrack, board, and drawer=port=0; for commands that apply to a port, the *naming* must have rack, subrack, board, and port.

domain_name

The domain name in the set {eqpt | ts | pm}.

severity

The associated severity in the set {critical | major | minor | warning | indeterminate}.

yy:mm:dd

Year, an integer value in the range [1 ... 99]; month, an integer value in the range [1 ... 12]; day, an integer value in the range [1 ... 31].

hh:mm:ss

Hour, an integer value in the range [0 ... 23]; minute, an integer value in the range [0 ... 59]; second, an integer value in the range [0 ... 59].

Example

The following example shows the information about the active Alarm List:

```
Cli> alarmlist

       Time            Resource       Alarm                      Status  Severity
=============================================================================
07-06-04 05:37:42 r1sr1sl2           Card Out                    on      minor
07-06-04 05:37:42 r1sr1sl18          Card Out                    on      critical
07-06-04 05:37:42 r1sr1sl20          Card Mismatch               on      critical
07-06-04 05:37:42 r1sr1sl21          Card Mismatch               on      critical
07-06-04 05:37:42 r1sr1sl28d0p7      Card Out                    on      critical
07-06-04 22:30:03 r1sr1sl28d0p1      LOS                         on      major
07-06-04 23:12:39 r1sr1sl25          Card Out                    on      critical
07-06-05 02:32:23 r1sr1sl28d0p8      LOS                         on      major
07-06-05 02:32:23 r1sr1sl28d0p7      LOS                         on      major
07-06-05 02:35:33 r1sr1sl25d0p1      Card Out                    on      critical
07-06-05 02:37:42 r1sr1sl25d0p1      LOS                         on      major


62 - message: successful completed command !!
```

alarmsynth [domain | severity]

Description

This command allows a user to get a synthesis of the currently active alarms (for example, the number of alarms grouped for different severity or different relevant domain, according to the entered optional parameter).

If no optional parameter is provided, the ‘severity’ choice is applied.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows the information about the synthesis of the currently active alarms:

```
Cli> alarmsynth

                  EQUIPMENT       TRANSMISSION      PERF. MONIT.
================================================================
critical             6                -                   -
major                -                4                   -
minor                1                -                   -
warning              -                -                   -
indeterminate        -                -                   -
cleared              -                -                   -

62 - message: successful completed command !!
```

log info

Description

This command allows a user to retrieve basic configuration information about the log.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows the information about the log:

```
Cli:ADMIN > log info

Show log Info .1
------------------
Log Type: AlarmLog (1.3.6.1.4.1.637.54.1.1.3.1.5)
Log Admin Status: unlocked (1)
Log Oper Status: enabled (1)
Log Max Size: 1000
Max Notification Id: 2147483674

Show log Info .2
------------------
Log Type: EventLog (1.3.6.1.4.1.637.54.1.1.3.1.4)
Log Admin Status: unlocked (1)
Log Oper Status: enabled (1)
Log Max Size: 1000
Max Notification Id: 2147483674
```

log alarm [domain *domain_name*] [severity *severity*] [time *[yy:mm:dd:]hh:mm:ss[-[yy:mm:dd:]hh:mm:ss]*] [position *naming*]

Description

This command allows a user to get the alarm log records.

The user can profile the output by means of one or more combined optional parameters, which allow selection of all alarm log records:

- of a specific domain
- with a specific severity value
- raised starting from a specific instant or within a specific time interval
- affecting a certain resource

This command is assigned the READ privilege.

Syntax Definitions

naming

The following syntax is used for naming a resource to which a CLI command applies:

rR**sr**S**sl**B**d**D**p**P , where:

R	Rack	1 7
S	Subrack	0 or 1 7
B	Board	0 or 1 63
D	Drawer	0 or 1 7
P	Port	0 or 1 1023

Note 1: When a certain field is meaningless for naming a resource, this field is omitted in the *naming*. For 1850 TSS-100 R01.01, drawer is not supported and the value should always be 0 or can be omitted.

Note 2: For commands that apply to a board, the *naming* must have rack, subrack, board, and drawer=port=0; for commands that apply to a port, the *naming* must have rack, subrack, board, and port.

domain_name

The domain name in the set {eqpt | ts | pm}.

severity

The associated severity in the set {critical | major | minor | warning | indeterminate}.

yy:mm:dd

Year, an integer value in the range [1 ... 99]; month, an integer value in the range [1 ... 12]; day, an integer value in the range [1 ... 31].

hh:mm:ss

Hour, an integer value in the range [0 ... 23]; minute, an integer value in the range [0 ... 59]; second, an integer value in the range [0 ... 59].

Example

The following example shows the information about the alarm log records:

```
Cli> log alarm

       Time              Resource          Alarm          Status     Severity
================================================================================
07-06-04 05:37:42       r1sr1sl2         Card Out          on         minor
07-06-04 05:37:42       r1sr1sl18        Card Out          on         critical
07-06-04 05:37:42       r1sr1sl20        Card Mismath      on         critical
07-06-04 05:37:42       r1sr1sl21        Card Mismatch     on         critical
07-06-04 05:37:42       r1sr1sl28d0p7    Card Out          on         minor
07-06-04 05:37:42       r1sr1sl28d0p7    Card Out          off        cleared
07-06-04 05:37:42       r1sr1sl28d0p7    Card Out          on         critical
07-06-04 06:26:53       r1sr1sl10        Card Out          on         minor
07-06-04 06:29:12       r1sr1sl10        Card Out          off        cleared
07-06-04 07:37:18       r1sr1sl28d0p2    Card Out          on         critical
07-06-04 22:24:48       r1sr1sl28d0p1    LOS               on         major
07-06-04 22:24:50       r1sr1sl28d0p2    LOS               on         major
07-06-04 22:25:02       r1sr1sl28d0p1    LOS               off        cleared
07-06-04 22:30:03       r1sr1sl28d0p1    LOS               on         major
07-06-04 22:30:05       r1sr1sl28d0p2    LOS               off        cleared
07-06-04 23:09:20       r1sr1sl3         Card Fail         on         minor
07-06-04 23:09:20       r1sr1sl5         Card Fail         on         minor
07-06-04 23:10:49       1sr1sl3          Card Fail         off        cleared
07-06-04 23:10:49       r1sr1sl5         Card Fail         off        cleared

62 - message: successful completed command !!
```

log event [time *[yy:mm:dd:]hh:mm:ss[-[yy:mm:dd:]hh:mm:ss]*] [position *naming*]

Description

This command allows a user to retrieve the event log records.

The user can profile the output by means of one or more combined optional parameters, which allow selection of all event log records:

- raised starting from a specific instant or within a specific time interval
- concerning a certain resource

This command is assigned the READ privilege.

Syntax Definitions

naming

The following syntax is used for naming a resource to which a CLI command applies:

rR**sr**S**sl**B**d**D**p**P , where:

R	Rack	1 7
S	Subrack	0 or 1 7
B	Board	0 or 1 63
D	Drawer	0 or 1 7
P	Port	0 or 1 1023

Note 1: When a certain field is meaningless for naming a resource, this field is omitted in the *naming*. For 1850 TSS-100 R01.01, drawer is not supported and the value should always be 0 or can be omitted.

Note 2: For commands that apply to a board, the *naming* must have rack, subrack, board, and drawer=port=0; for commands that apply to a port, the *naming* must have rack, subrack, board, and port.

yy:mm:dd

Year, an integer value in the range [1 ... 99]; month, an integer value in the range [1 ... 12]; day, an integer value in the range [1 ... 31].

hh:mm:ss

Hour, an integer value in the range [0 ... 23]; minute, an integer value in the range [0 ... 59]; second, an integer value in the range [0 ... 59].

Example

The following example shows the information about the log events:

```
Cli> log event

       Time              EventType            Resource
=========================================================
2007-07-19 00:00: stateChange (4)         r1sr1sl28d0p2
2007-07-19 00:00: stateChange (4)         r1sr1sl28d0p1
2007-07-19 00:00: stateChange (4)         r1sr1sl28d0p1
2007-07-19 00:00: stateChange (4)         r1sr1sl28d0p2
2007-07-19 00:00: stateChange (4)         r1sr1sl28d0p2
2007-07-19 00:35: attributeValueChange (  r1sr1sl28d0p7
2007-07-19 00:35: attributeValueChange (  r1sr1sl28d0p2
2007-07-19 00:35: attributeValueChange (  r1sr1sl28d0p1
2007-07-19 03:15: stateChange (4)
2007-07-19 03:16: stateChange (4)
2007-07-19 03:16: attributeValueChange (  r1sr1sl1
2007-07-19 03:17: attributeValueChange (  r1sr1sl2
2007-07-19 03:17: attributeValueChange (  r1sr1sl3d0p1
2007-07-19 03:17: attributeValueChange (  r1sr1sl3d0p2
2007-07-19 03:17: attributeValueChange (  r1sr1sl3d0p3
2007-07-19 03:17: attributeValueChange (  r1sr1sl3d0p4
2007-07-19 03:17: attributeValueChange (  r1sr1sl4
2007-07-19 03:18: attributeValueChange (  r1sr1sl5d0p1
2007-07-19 03:18: attributeValueChange (  r1sr1sl5d0p3
2007-07-19 03:18: attributeValueChange (  r1sr1sl6
2007-07-19 03:18: attributeValueChange (  r1sr1sl7
2007-07-19 03:18: attributeValueChange (  r1sr1sl8
2007-07-19 03:18: attributeValueChange (  r1sr1sl11
2007-07-19 03:18: attributeValueChange (  r1sr1sl12
2007-07-19 03:18: attributeValueChange (  r1sr1sl13d0p2
2007-07-19 03:18: attributeValueChange (  r1sr1sl13d0p4
2007-07-19 03:19: attributeValueChange (  r1sr1sl14
2007-07-19 03:19: attributeValueChange (  r1sr1sl15
2007-07-19 03:19: attributeValueChange (  r1sr1sl16
2007-07-19 03:19: attributeValueChange (  r1sr1sl18
2007-07-19 03:19: attributeValueChange (  r1sr1sl25
2007-07-19 03:19: attributeValueChange (  r1sr1sl26
2007-07-19 03:20: attributeValueChange (  r1sr1sl27
2007-07-19 03:20: attributeValueChange (  r1sr1sl28d0p3
2007-07-19 03:20: attributeValueChange (  r1sr1sl28d0p5
2007-07-19 03:20: attributeValueChange (  r1sr1sl28d0p6
2007-07-19 03:20: attributeValueChange (  r1sr1sl28d0p7
2007-07-19 03:20: attributeValueChange (  r1sr1sl28d0p8
```

8.2 Alarm Profile Management

A summary of available commands is listed here:

severitydef show

alarmprofile show [alarmprofile_userlabel]

severitydef show

Description

This command allows a user to retrieve the default severity.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows all the relevant severity definition information:

```
Cli:ADMIN > severitydef show
Alarm Severity Default: minor (3)
Cli:ADMIN > _
```

alarmprofile show [*alarmprofile_userlabel*]

Description

If no alarm profile user label is specified, this command allows a user to get the list of the user labels of all alarm profiles.

If an alarm profile user label is specified, this command allows a user to get the details of that alarm profile.

This command is assigned the READ privilege.

Syntax Definitions

alarmprofile_userlabel
An ASCII string defined by the Operator.

Example

The following example shows all the relevant Alarm Severity Profile information:

```
Cli:ADMIN > alarmprofile show

Index  Alarm Severity Profile User Label                  Status
------ ---------------------------------------------- --------------------
1      no alarm                                       active (1)
2      primary alarms                                 active (1)
3      path alarms                                    active (1)
4      all alarms                                     active (1)
```

8.3 SW Package Management

A summary of available commands is listed here:

```
swpkg show {info [pkg pkgversion] | board naming}
swpkg show profile
```

swpkg show {info [pkg *pkgversion*] | board *naming*}

Description

This command allows a user to request information about the software package.

If the user select ‘info’ and does not provide any optional parameter, information for all units of all software packages stored in the NE is shown.

If the user provides the ‘pkg’ optional parameter, information for all units of the specified software package is shown.

If the user selects ‘board’, the information for SW unit running in the specified board is shown.

This command is assigned the READ privilege.

Syntax Definitions

pkgversion

It is a value in the form xx.xx.xx (for example, 02.11.00) where:

- the first field represents the Major version
- the second field represents the Minor version
- the third field represents the Maintenance version

naming

The following syntax is used for naming a resource to which a CLI command applies:

rR**sr**S**sl**B**d**D**p**P, where:

R	Rack	1 7
S	Subrack	0 or 1 7
B	Board	0 or 1 63
D	Drawer	0 or 1 7
P	Port	0 or 1 1023

Note 1: When a certain field is meaningless for naming a resource, this field is omitted in the *naming*. For 1850 TSS-100 R01.01, drawer is not supported and the value should always be 0 or can be omitted.

Note 2: For commands that apply to a board, the *naming* must have rack, subrack, board, and drawer=port=0; for commands that apply to a port, the *naming* must have rack, subrack, board, and port.

Example

The following example shows the output of network element information.

```
Cli > swpkg show info

Show Software Package Version Info .1
---------------------------------------
.1 - Sw Package Command: none (1)
.1 - Sw Package Version: V1.1.41
.1 - Sw Package Label: 1850TSS100M
.1 - Sw Package Activation Result: idle (8)
.1 - Sw Package Activation Date: 19700101000726.0Z
.1 - Sw Package Current State: commited (2)
.1 - Sw Package Operational State: enabled (1)
```

swpkg show profile

Description

This command allows shows the actual software package profile.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows the software package profile loaded on the Alcatel-Lucent 1850 TSS-100 Network Element:

```
Cli:ADMIN (swpkg) > show profile
Sw Package Profile: E0 [sdh (0)] [wdm (1)] [ethernet (2)]
```

8.4 Agent Management

A summary of available commands is listed here:

`ne location nelocation`

`ne label ne_userlabel`

`ne show info`

ne location *nelocation*

Description

This command allows a user to configure the Alcatel-Lucent 1850 TSS-100 Network Element location.

This command is assigned the PROV privilege.

Syntax Definitions

nelocation
A string indicating the location of the node.

Example

The following example shows the command to set the Network Element location:

```
Cli:ADMIN (ne) > location pluto
62 - message: successful completed command !!
```

ne label *ne_userlabel*

Description

This command allows a user to configure the Alcatel-Lucent 1850 TSS-100 Network Element label.

This command is assigned the PROV privilege.

Syntax Definitions

ne_userlabel
An ASCII string defined by the Operator.

Example

The following example shows the command to set the Network Element label:

```
Cli > ne label TestLocation01

62 - message: successful completed command !!
```

ne show info

Description

This command shows the following Alcatel-Lucent 1850 TSS-100 Network Element information:

- NE installation type
- IM version
- NE location
- NE label
- Label of the OS managing the NE
- NE SW release
- Configuration of management interface.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows the Network Element information:

```
Cli > ne show info

Show Ne Info
---------------
Ne Installation Type: ne1850tss-100
Info Model Version Major: 3
Info Model Version Minor: 0
Info Model Version Maintenance:
sys Location: Boston
Sdh Ne Label: TestLocation01
Ne Owns By Mgr: $
sysDescr: V010100
Mng Interface Type: snmp (1)
Mng Interface Characterization: primary (0)
Mng Interface Address Type: ipAddress (0)
Mng Interface Address: 10.10.10.10:161
```

9. Communication & Routing Management Commands

9.1 Agent Address Management

A summary of available commands is listed here:

ne show addr

ne show addr

Description

This command displays the Alcatel-Lucent 1850 TSS-100 Network Element agent IP address, netmask, and UDP port.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows information about agent addresses:

```
Cli:ADMIN > ne show addr
Snmp Agt Ip Address: 10.10.10.10
Snmp Agt Ip Mask: 0.0.0.0
Snmp Agt Udp Port: 161
```

10. Security Management Commands

10.1 Available Commands

A summary of available commands is listed here:

```
user create login user_login userprofile user_profile
user delete login user_login
user changepwd
user changepwd login user_login
user show
```

A user that is starting a CLI session (telnet session) must provide a valid login and password pair that has been defined in the Alcatel-Lucent 1850 TSS-100 Network Element in order to gain access.

Users and CLI commands are assigned access privileges. A user must have the same access privilege as the command to be able to execute that command. For more details on user privileges, refer to CLI Access Privileges on pg. 2-4.

user create login *user_login* userprofile *user_profile*

Description

This command creates a new user.

The user that is excuting the operation enters the command with login and user profile. As soon as the command has been entered, the CLI provides a new prompt requiring the password. The user is required to enter the password twice. The initial privilege assigned to a user is READ.

The password is displayed as a series of * characters.

This command is assigned the SEC privilege.

Syntax Definitions

user_profile
The security user profile, in the set {READ | PROV | SEC | DEBUG | NETADMIN | CONF | NOTMOUT }.

user_login
A string representing the user login.

Example

```
Cli:ALCATEL > user create login test001 userprofile READ+PROV
Password:*********
Password:*********

62 - message: successful completed command !!
```

user delete login *user_login*

Description

This command deletes a user.

This command is assigned the SEC privilege.

Syntax Definitions

user_login
A string representing the user login.

Example

```
Cli > user delete login USER03

62 - message: successful completed command !!
```

user changepwd

Description

This command allows a user to change his or her own password.

The user that is excuting the operation enters the command. As soon as the command has been entered, the CLI provides a new prompt requiring the password. The user is required to enter the password twice.

The password is displayed as a series of * characters.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example is shows the user password modification (new password is entered twice):

```
Cli:ALCATEL > user changepwd
Password:*********
Password:*********

62 - message: successful completed command !!
```

user changepwd login *user_login*

Description

This command allows a user to change the password of another user.

The user that is executing the operation enters the command. As soon as the command has been entered, the CLI provides a new prompt requiring the password. The user is required to enter the password twice.

The password is displayed as a series of * characters.

This command is assigned the SEC privilege.

Syntax Definitions

user_login

A string representing the user login.

Example

```
Cli > user changepwd login USER02
Password:*********
Password:*********

62 - message: successful completed command !!
```

user show

Description

This command displays a list of users on the Alcatel-Lucent 1850 TSS-100 Network Element and their status.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows the relevant user information:

```
Cli> user show

User Login        Privileges
============================================================
ALCATEL        CONF+DEBUG+NETADMIN+NOTMOUT+PROV+READ+SEC
EML001            CONF+NETADMIN+NOTMOUT+PROV+READ+SEC
test001              READ
EML002            CONF+NETADMIN+NOTMOUT+PROV+READ+SEC
USER05            CONF+NETADMIN+NOTMOUT+PROV+READ+SEC
```

11. Debug Commands

11.1 Available Commands

A summary of available commands is listed here:

debug show ne info

debug show ne info

Description

This command shows the network element information about the Alcatel-Lucent 1850 TSS-100:

- System name. This will indicate if the NE software release is backward compatible or not.
- Configuration mode. This shows whether thehe MIB propagtes configuration information to the hardware
- Naming Mask Rule. This shows the number of bits hat are used for each field.

This command is assigned the READ privilege.

Syntax Definitions

N/A

Example

The following example shows retrieved debug information.

```
Cli> debug show ne info

Show NE info
-------------------------------------------------
sys Name: sysadmin
MibConfigurationMode:  online (1)
MaskNamingRule:  4X3r3s6b3d10p3c
```

12. CLI Quick Reference

This chapter provides a quick reference to CLI commands. Two different lists are provided:

- CLI **commands listed by command groups** (Section 12.1)
- CLI commands listed in **alphabetical order** (Section 12.2)

12.1 CLI Commands listed by Commands Groups

Equipment Management Commands

1... eqpt position *naming_set_list* show type

2... eqpt position *naming_set_list* show asap

3... eqpt position *naming_set_list* show allowedeqpt

4... eqpt position *naming_set_list* show info

5... eqpt position *naming_set_list* show ri

6... eqpt show allpositions

7... eqpt show nename

8... eqpt show cliversion

9... eqpt show pdaversion

Ethernet Physical, GFP and LAPS Management Commands

10... interface show [*naming_set_list*]

11... interface trafficshow [*naming_set_list*]

12... interface position *naming_set_list* localeth defaulttype {10 | 100 | 1000}

13... interface position *naming_set_list* localeth show mauinfo

14... interface position *naming_set_list* localeth autoneg {enable | disable}

15... interface position *naming_set_list* localeth autoneg restart

16... interface position *naming_set_list* localeth autoneg advertisedcapability [10 | 100 | 1000 | 10&100 | 10&100&1000] [nopause | asympause | sympause | asym&sympause]

17... interface position *naming_set_list* localeth show autoneg

18... interface position *naming_set_list* localeth loopback {line | internal} {enable | disable}

19... interface position *naming_set_list* localeth show loopback

20... interface position *naming_set_list* remoteeth ratelimited *ratelimited_value*

21... interface position *naming_set_list* remoteeth asap *asap_userlabel*

22... interface position *naming_set_list* remoteeth show mappinginfo

Ethernet Port Management Commands

23... interface position *naming_set_list* localeth {activate | deactivate}

24... interface position *naming_set_list* localeth maxmtu *mtu_value*

25... interface position *naming_set_list* localeth defaultflowcontrol {nopause | asympause | sympause}

26... interface position *naming_set_list* localeth admittedfractionalrate *admitted_fractional_rate*

27... interface position *naming_set_list* localeth ethasap *asap_userlabel*

28... interface position *naming_set_list* localeth show ethinfo

29... interface position *naming_set_list* remoteeth {activate | deactivate}

30... interface position *naming_set_list* remoteeth maxmtu *mtu_value*

31... interface position *naming_set_list* remoteeth show ethinfo

Services Management Commands

32... portportbid activate *flow_userlabel* port1 *naming* port2 *naming*

33... portportbid delete *flow_userlabel*

34... portportbid show [*flow_userlabel*]

Performance Monitoring Management Commands

35... pmmaint show port *naming*

Support Management Commands

36... alarmlist [domain *domain_name*] [severity *severity*] [time *[yy:mm:dd:]hh:mm:ss[-[yy:mm:dd:]hh:mm:ss]*] [position *naming*]

37... alarmsynth [domain | severity]

38... log info

39... log alarm [domain *domain_name*] [severity *severity*] [time *[yy:mm:dd:]hh:mm:ss[-[yy:mm:dd:]hh:mm:ss]*] [position *naming*]

40... log event [time *[yy:mm:dd:]hh:mm:ss[-[yy:mm:dd:]hh:mm:ss]*] [position *naming*]

41... severitydef show

42... alarmprofile show [*alarmprofile_userlabel*]

43... swpkg show {info [pkg *pkgversion*] | board *naming*}

44... swpkg show profile

45... ne location *nelocation*

46... ne label *ne_userlabel*

47... ne show info

Communication & Routing Management Commands

48... ne show addr

Security Management Commands

49... user create login *user_login* userprofile *user_profile*

50... user delete login *user_login*

51... user changepwd

52... user changepwd login *user_login*

53... user show

Debug Commands

```
54... user show ne info
```

12.2 CLI commands listed in Alphabetical Order

A

```
alarmlist [domain domain_name] [severity severity] [time[yy:mm:dd:]hh:mm:ss[-
       [yy:mm:dd:]hh:mm:ss]] [position naming]
alarmprofile show [alarmprofile_userlabel]
alarmsynth [domain | severity]
```

D

```
debug show ne info
```

E

```
eqpt position naming_set_list show allowedeqpt
eqpt position naming_set_list show asap
eqpt position naming_set_list show info
eqpt position naming_set_list show ri
eqpt position naming_set_list show type
eqpt show allpositions
eqpt show cliversion
eqpt show nename
eqpt show pdaversion
```

I

interface position *naming_set_list* localeth {activate | deactivate}

interface position *naming_set_list* localeth admittedfractionalrate *admitted_fractional_rate*

interface position *naming_set_list* localeth autoneg {enable | disable}

interface position *naming_set_list* localeth autoneg advertisedcapability [10 | 100 | 1000 | 10&100 | 10&100&1000] [nopause | asympause | sympause | asym&sympause]

interface position *naming_set_list* localeth autoneg restart

interface position *naming_set_list* localeth defaultflowcontrol {nopause | asympause | sympause}

interface position *naming_set_list* localeth defaulttype {10 | 100 | 1000}

interface position *naming_set_list* localeth ethasap *asap_userlabel*

interface position *naming_set_list* localeth loopback {line | internal} {enable | disable}

interface position *naming_set_list* localeth maxmtu *mtu_value*

interface position *naming_set_list* localeth show autoneg

interface position *naming_set_list* localeth show ethinfo

interface position *naming_set_list* localeth show loopback

interface position *naming_set_list* localeth show mauinfo

interface position *naming_set_list* remoteeth {activate | deactivate}

interface position *naming_set_list* remoteeth asap *asap_userlabel*

interface position *naming_set_list* remoteeth maxmtu *mtu_value*

interface position *naming_set_list* remoteeth ratelimited *ratelimited_value*

interface position *naming_set_list* remoteeth show ethinfo

interface position *naming_set_list* remoteeth show mappinginfo

interface show *naming_set_list*

interface trafficshow *naming_set_list*

L

log alarm [domain *domain_name*] [severity *severity*] [time *[yy:mm:dd:]hh:mm:ss[-[yy:mm:dd:]hh:mm:ss]*] [position *naming*]

log event [time *[yy:mm:dd:]hh:mm:ss[-[yy:mm:dd:]hh:mm:ss]*] [position *naming*]

log info

N

```
ne label ne_userlabel
ne location nelocation
ne show addr
ne show info
```

P

```
pmmaint show port naming
portportbid activate flow_userlabel port1 naming port2 naming
portportbid delete flow_userlabel
portportbid show [flow_userlabel]
```

S

```
severitydef show
swpkg show {info [pkg pkgversion] | board naming}
swpkg show profile
```

U

```
user changepwd
user changepwd login user_login
user create login user_login userprofile user_profile
user delete login user_login
user show
```

Abbreviations

In the following table are listed the abbreviations related to this document only.

For a complete **Glossary** refer to the Alcatel-Lucent *1850 TSS-100 TL1 Operations Guide, Volume 1*.

ABBREVIATION	MEANING
ACL	Access Control List
ASCII	American Standard Code for Information Interchange
CLI	Command Line Interfacd
CONF	Configuration (a user and command privilege)
CT	Craft Terminal
GFP	Generic Framing Procedure
LAPS	Link Access Procedure over SDH
MAU	Medium Attachment Unit
MRU	Maximum Receive Unit
MTU	Maximum Transmit Unit
NE	Network Element
NETADMIN	Network Administrator (a user and command privilege)
NOTMOUT	No Time Out (a user privilege)
PROV	Provisioning (a user and command privilege)
TSS	**T**ransport **S**ervice **S**witch
UID	User Identification

User Response Form

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