



DISCONTINUED

Optical Access

Craft Line Interface (CLI)

OPERATION MANUAL

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SCOPE

1. Scope

This document describes the CLI interface for the entire Optical Access Platform.

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CRAFT LINE INTERFACE (CLI)

2. Craft Line Interface (CLI)

2.1 Command Structure

Upon power up, the CLI attaches to the front panel DB9 console port by default. The following is a sample greeting screen:

```
*****
      ATX Networks Craft Line Interface
*****
Transcend [slot-1] >
```

The slot number in square bracket indicates the plug-in that CLI is currently in communication with. The above example selects the slot number 1.

The I-HUB user interface adopts the same design philosophy as the one of TranScend. Similar to the LCD menu, the I-HUB chassis Craft Line Interface (CLI) is structured into bi-level trees. The top level is system related information and the second level is plug-in related information. The top level contains the commands for second level, but each has its own command structure.

The I-HUB CLI and SNMP attributes are constructed dynamically upon detection of I-HUB agent. Prior to the presence of the I-HUB agent, user cannot retrieve I-HUB related information. To access the I-HUB menu, user must first traverse down to the slot with I-HUB agent capability. Following is an example of accessing an I-HUB module menu.

In this example, a DeStacker-Proxy agent is detected on slot 2.

```
Transcend[slot-1] >slot
Slot 1 - Empty
Slot 2 - DeStacker-
Proxy Slot 3 - Empty
Slot 4 - Empty
```

To access the I-HUB menu, user first needs to traverse down to the proxy agent capable slot.

```
Transcend[slot-1] >slot 2
Slot 2 (DeStacker-Proxy) se-
lected Transcend[slot-2] >
```

The I-Hub system menu items appear as part of the slot 2 Help, in the section named "Addon Commands". These commands only would appear if user activates the associated proxy agent capable slot.

```
Transcend[slot-2] >help
Following commands are supported.
System Commands:
help      uptime      info      logout      status

alarm      DownloadStatus      slot      ModuleSupport
SwVer      HwVer      ModelName      SerialNum      Network
```

Download	Reboot	Date	Hostname	Community
TrapAddr	sysContact	sysLocation	PowerAlarm	FanAlarm

Module Commands:

ModuleTemp	ModuleTempAlarm	OpticalPowerDbm	GainReserve
Attenuation	OpticalPowerAlarm	LockAlarm	

Addon Commands:

Help	slot	iHub	exit	ModuleSupport
info	status	alarm		

Through the I-HUB commands, the I-HUB #2 is shown under this slot.



NOTE: The I-HUB # shown here may not be identical to the I-HUB ID which is set via the dial of I-HUB Controller. In the case of 1-way communication protocol, this I-HUB # follows the TranScend slot number. In the case of 2-way communication protocol, this I-HUB # follows the dial I-HUB Controller.

```
Transcend[slot-2] >ihub
Hub 2 - iHUB
Transcend[slot-2] >ihub 2
iHubs 2 (iHUB) selected
Transcend[slot-2] >[ihub-2 slot-1] >
```

Similar to the TranScend system menu, “slot” command displays the detected cards in the I-HUB #2.

```
Transcend[slot-2] >[ihub-2 slot-1] >slot
Slot 1 - OptoStacker
Slot 2 - OptoStacker
Slot 3 - Empty
Slot 4 - Empty
Slot 5 - Empty
Slot 6 - Empty
Slot 7 - Empty
Slot 8 - OptoStacker
Slot 9 - OptoStacker
Slot 10 - Empty
```

By selecting the slot, the I-HUB module menu becomes accessible. In this example, the OptoStacker is detected in I-HUB #2 slot #1, the OptoStacker menu items are accessible to users under “ihub-2 slot-1”.

```
Transcend[slot-2] >[ihub-2 slot-1] >help
```

System Commands:

help	slot	iHub	exit	ModuleSupport
info	status	alarm		
SwVer	HwVer	ModelName	SerialNum	Network


```

Download      Reboot      Date      Hostname      Community
TrapAddr     sysContact  sysLocation  ModuleTemp    ModuleTempAlarm
SfpAlarm      PowerAlarm

```

Module Commands:

```

ModuleTemp    LaserTemp    OPoutPower    OpticalPowerDbm  GainReserve
Mode          LaserTempAlarm  OpticalPowerAlarm  OPoutPowerAlarm  ModuleTempAlarm

```

To traverse back up to TranScend menu, type "exit" in any I-HUB slot menu.

```

Transcend[slot-2] >[ihub-2 slot-1] >exit
Transcend[slot-2] >

```

2.1.1 System Commands

The commands in this section are system related.

Help: Displays all available commands or help on individual command.

Example #1: Displays all available commands.

```

Transcend [slot-1] >help
System Commands:
help      slot      iHub      exit      ModuleSupport
info      status    alarm
SwVer     HwVer     ModelName  SerialNum  Network

Download  Reboot    Date      Hostname    Community
TrapAddr  sysContact  sysLocation  ModuleTemp    ModuleTempAlarm
SfpAlarm  PowerAlarm

```

Example #2: Display individual help description.

```

Transcend [slot-1] >help network
Network:
Set/Get network configuration.
Syntax: Network <ip netmask gateway >
No argument: Display network configuration.
With all 3 arguments: Configure network.

```

Info: Displays the system and selected plug-in factory information.

Example #1: The first part is System factory information and followed by the factory information of I-HUB #2 plug-in in slot 1.

```

Transcend[slot-2] >[ihub-2 slot-1] >info
iHub 2
SwVer:
1.2
HwVer:
3

```

```
ModelName:
  IHUB-CTRL
SerialNum:
  01420070901234

iHub 2 Slot 1 (OptoStacker)
SwVer:
  1.8
HwVer:
  1
ModelName:
  IHUB-OSTCKR
SerialNum:
  01420070901234
```

iHub: Display the selected I-HUB or list of all available I-Hubs in this slot.

```
Transcend[slot-2] >ihub
Hub 2 - iHUB
```

Status: Displays the status on the system and selected plug-in.

Example #1: In this example, it displays the status of the I-HUB #2 and selected plug-in, OptoStacker.

```
Transcend[slot-2] >[ihub-2 slot-1] >status
iHub 2
ModuleTemp (deg C):
  +26.1

iHub 2 Slot 1 (OptoStacker)
ModuleTemp (deg C):
  +35.7
LaserTemp (deg. C):
  +25.0
OPoutPower (dBm):
  +20.2
OpticalPowerDbm (dBm):
  [1] -55.4 [2] -55.6 [3] -55.5 [4] -55.6
GainReserve (dB):
  +19.7
Mode:
  [1] MGC [2] MGC [3] MGC [4] MGC
```

Alarm: Displays the alarm status on the system and selected plug-in.

Example #1: In this example, displays the alarms of the selected I-HUB #2slot 1 plug-in, OptoStacker.

```
Transcend[slot-2] >[ihub-2 slot-1] >alarm
iHub 2
```

```

ModuleTempAlarm:
    Normal
SfpAlarm:
    NA
PowerAlarm:
    Major

iHub 2 Slot 1 (OptoStacker)
LaserTempAlarm:
    Normal
OpticalPowerAlarm:
    [1] MajorLoLo [2] MajorLoLo [3] MajorLoLo [4] MajorLoLo
OPoutPowerAlarm:
    Normal
ModuleTempAlarm:
    Normal

```

Exit: Traverses back to TranScend menu.

Slot: Displays the detected plug-in in each slot.

Example #1: This example shows that the chassis contains an High Sensitivity Quad Return Receiver in slot 1 and slot 2, 3 and 4 are empty.

```

Transcend[slot-1] >slot
Slot 1 - HS-QRRX
Slot 2 - Empty
Slot 3 - Empty
Slot 4 - Empty

```

ModuleSupport: Displays the list of supported modules. *User shall use this command to determine the compatibility of the chassis and plug in modules. A microprocessor with older version of software may require a software upgrade to support the newer plug in module for remote monitoring and snmp support.*

Example #1: This example shows the list of supported module.

```

Transcend[slot-2] >[ihub-2 slot-1] >ModuleSupport
EDFA
AGC-EDFA
Optical-Switch
OptoStacker
iHUB

```

ModelName: Displays the model name information of the system.

SerialNum: Displays the model name information of the system.

Network: Displays or set the chassis network configuration.

Example #1: In this example, the system contains the configuration with an IP address: 192.168.1.202, network address mask: 255.255.255.0 and gateways address: 192.168.1.1.

```

Transcend [slot-1] >network

```

```
IpAddr: 192.168.1.202   Mask: 255.255.255.0   Gateway: 192.168.1.1
BdCast: 192.168.1.255   Mac: 00:50:c2:88:10:02
```

Example #2: In this example, the system is configured with an IP address: 192.168.1.202, network address mask: 255.255.255.0 and gateways address: 192.168.1.1. And the system indicates the command execution as "Successful". Only these network parameters are settable by user.

```
Transcend [slot-1] >network 192.168.1.202 255.255.255.0 192.168.1.1
Successful
```

Download: Initiate a remote system software upgrade.

Example #1: In this example, the user "inno" with password "inno" initiated the download request. The download file name is "vmlinux-initrd.img" which is hosted under /tftpboot on the download server at 192.168.1.137. Note: the ftp server must be set up prior to a successful download. There is no response returned for this command. To see the download status, user shall use "downloadstatus" command instead.

```
Transcend [slot-1] >download inno inno 192.168.1.137 /tftpboot/vmlinux-initrd.img
```

Reboot: Displays the current reboot state or initiates a system reboot.

Example #1: This example demonstrates a system reboot. The reboot process may a few minutes to complete.

```
Transcend [slot-1] >reboot now
```

Date: Displays the current system time.



NOTE: TranScend chassis is configured to factory time prior to shipment. It does not make local time adjustment (e.g. daylight saving time) automatically.

Hostname: Displays or configure the system hostname.

Example #1: In this example, user requested to configure the hostname "InnoTrans". And the system indicates the command execution as "Successful".

```
Transcend[slot-1] >hostname InnoTrans
Successful
```

Community: Displays or configures the SNMP community string. Up to 3 community strings are supported. The system default community string is "public" with read only permission.

Example #1: In this example, user requested to add a community string "inno" with read-write permission. And the system indicates the command execution as "Successful".

```
Transcend [slot-1] >community add inno rw
Successful
```

Example #2: In this example, user requested to add a community string name "inno" with read-only permission. And the system indicates the command execution as "Successful"

```
Transcend [slot-1] >community add inno
Successful
```

TrapAddr: Displays or configures the SNMP trap destination IP addresses. Up to 2 trap addresses are supported.

Example #1: In this example, user requested to add a trap destination, 192.168.1.137. And the system indicates the command execution as "Successful".

```
Transcend [slot-1] >trapaddr add 192.168.1.137
Successful
```

sysContact: Displays or configures the SNMP system contact information.

Example #1: In this example, user configures the SNMP system contact information as "snmp@inno-trans.com". And the system indicates the command execution as "Successful".

```
Transcend [slot-1] >sysContact snmp@inno-trans.com
Successful
```

SysLocation: Displays or configures the SNMP system location information.

Example #1: In this example, user configures the SNMP system location information as "Bldg 10, San Jose, CA". And the system indicates the command execution as "Successful".

```
Transcend [slot-1] >sysLocation bldg 10, San Jose, CA
Successful
```

ModuleTemp: Displays the chassis temperature alarm status.

ModuleTempAlarm: Displays the chassis temperature alarm status.

SfpTemp: Displays the I-HUB N-Controller's SFP alarm status.

PowerAlarm: Displays the I-HUB power supply alarm status.

2.1.2 Plug-in Commands

The plug-in commands are grouped into two types, commands that are common to all types of plug-in and that are type specific.

2.1.2.1 Common Commands

The commands in this section are common to all types of module.

SwVer: Displays the software version information of the selected plug-in.

HwVer: Displays the hardware version information of the selected plug-in.

2.1.2.2 EDFA & AGC-EDFA

The commands in this section are EDFA and AGC-EDFA specific.

ModuleTemp: Displays the module temperature reading in Centigrade.

Example #1: In this example, the module in iHUB #2 slot 1 reports its module temperature reading as 21.4 Centigrade.

```
Transcend [slot-1] > [ihub-2 slot-1] >ModuleTempAlarm
+21.4 (deg C)
```

OPinPower: Displays the optical input power reading in dBm.

Example #1: In this example, the module in iHub #2 slot 1 reports its optical input power reading.

```
Transcend[slot-2] >[ihub-2 slot-1] >OPinPower
OPinPower (dBm):
+20.2
```

OPoutPower: Displays the optical output power reading in dBm.

Example #1: In this example, the module in iHub #2 slot 1 reports its optical output power reading.

```
Transcend[slot-2] >[ihub-2 slot-1] >OPoutPower
OPoutPower (dBm):
+20.2
```

Gain: Displays the gain reading in dB. This menu is only available for AGC-EDFA.

Example #1: In this example, the module in iHub #2 slot 1 reports its gain reading.

```
Transcend[slot-2] >[ihub-2 slot-1] >gain
Gain (dB):
-99.0
```

OPinPowerAlarm: Displays the alarm status of optical input power.

Example #1: In this example, the module in iHub #2 slot 1 reports the alarm status of optical input power as "Normal".

```
Transcend[slot-2] >[ihub-2 slot-1] >OPinPowerAlarm
OPinPowerAlarm:
Normal
```

OPoutPowerAlarm: Displays the alarm status of optical output power.

Example #1: In this example, the module in iHub #2 slot 1 reports the alarm status of optical output power as "Normal".

```
Transcend[slot-2] >[ihub-2 slot-1] >OPoutPowerAlarm
OPoutPowerAlarm:
Normal
```

ModuleTempAlarm: Displays the alarm status of module temperature.

Example #1: In this example, the module in iHub #2 slot 1 reports the alarm status of module temperature as Normal.

```
Transcend[slot-2] >[ihub-2 slot-1] >ModuleTempAlarm
ModuleTempAlarm:
Normal
```

2.1.2.3 Opto-Stacker

The commands in this section are Opto-stacker specific.

ModuleTemp: Displays the module temperature reading in Centigrade.

Example #1: In this example, the module in iHub #2 slot 1 reports its module temperature reading as 21.4 Centigrade.

```
Transcend [slot-1] > [ihub-2 slot-1] >ModuleTempAlarm
+21.4 (deg C)
```

LaserTemp: Displays the laser temperature reading in Centigrade.

Example #1: In this example, the module in iHub #2 slot 1 reports its laser temperature reading.

```
Transcend [slot-1] > [ihub-2 slot-1] > LaserTemp
+23.0 (deg C)
```

OPoutPower: Displays the optical output power reading in dBm.

Example #1: In this example, the module in iHub #2 slot 1 reports its optical output power reading.

```
Transcend[slot-2] >[ihub-2 slot-1] >OPoutPower
OPoutPower (dBm):
+20.2
```

OpticalPowerDbm: Displays the optical output power reading in dBm.

Example #1: In this example, the module in iHub #2 slot 1 reports its optical input power #1 reading.

```
Transcend[slot-2] >[ihub-2 slot-1] >OpticalPowerDbm 1
OpticalPowerDbm (dBm):
[1] -55.4
```

GainReserve: Displays the gain reserve in laser driver reading in dB.

Example #1: In this example, the module in iHub #2 slot 1 reports its gain reserve in laser driver reading.

```
Transcend[slot-2] >[ihub-2 slot-1] >GainReserve
GainReserve (dB):
+19.6
```

Mode: Displays the interface gain mode.

Example #1: In this example, the module in iHub #2 slot 1 reports its gain mode as MGC.

```
Transcend[slot-2] >[ihub-2 slot-1] >Mode 1
Mode:
[1] MGC
```

LaserTempAlarm: Displays the alarm status of laser temperature.

Example #1: In this example, the module in iHub #2 slot 1 reports the alarm status of laser temperature on channel 1 as "Normal".

```
Transcend[slot-2] >[ihub-2 slot-1] >LaserTempAlarm
LaserTempAlarm:
Normal
```

OpticalPowerAlarm: Displays the alarm status of optical input power.

Example #1: In this example, the module in iHub #2 slot 1 reports the alarm status of optical input power as "MajorLoLo" (e.g. Major alarm with power reading below the low low threshold).

```
Transcend[slot-2] >[ihub-2 slot-1] >OpticalPowerAlarm 1
OpticalPowerAlarm:
[1] MajorLoLo
```

OPoutPowerAlarm: Displays the alarm status of optical output power.

Example #1: In this example, the module in iHub #2 slot 1 reports the alarm status of optical output power as "Normal".

```
Transcend[slot-2] >[ihub-2 slot-1] >OPoutPowerAlarm
OPoutPowerAlarm:
Normal
```

ModuleTempAlarm: Displays the alarm status of module temperature.

Example #1: In this example, the module in iHub #2 slot 1 reports the alarm status of module temperature as Normal.

```
Transcend[slot-2] >[ihub-2 slot-1] >ModuleTempAlarm
ModuleTempAlarm:
Normal
```

2.1.2.4 Optical Switch

The commands in this section are Optical Switch specific.

ModuleTemp: Displays the module temperature reading in Centigrade.

Example #1: In this example, the module in iHub #2 slot 4 reports its module temperature reading as 21.4 Centigrade.

```
Transcend [slot-1] > [ihub-2 slot-4] >ModuleTempAlarm
+21.4 (deg C)
```

OPinPower: Displays the optical input power reading in dBm.

Example #1: In this example, the module in iHub #2 slot 4 reports its optical input power reading on input #1 (p.s. primary optical input).

```
Transcend[slot-2] >[ihub-2 slot-4] >opinpower 1
OPinPower (dBm):
[1] -20.0
```

Switch: Displays the optical switch position.

Example #1: In this example, the module in iHub #2 slot 4 reports its optical switch position as on primary input.

```
Transcend[slot-2] >[ihub-2 slot-4] >switch
Switch:
Primary
```

ThresholddBm: Displays the optical input power threshold reading in dBm.

Example #1: In this example, the module in iHub #2 slot 4 reports its optical threshold reading in dBm.

```
Transcend[slot-2] >[ihub-2 slot-4] >ThresholddBm
ThresholddBm (dBm):
-2.3
```

Mode: Displays the I-Hub Optical Switch front panel tri-position toggle switch setting.

Example #1: In this example, the module in iHub #2 slot 4 reports its optical switch tri-position toggle switch setting on Auto.

```
Transcend[slot-2] >[ihub-2 slot-4] >Mode
Mode:
Auto
```

OPinPowerAlarm: Displays the alarm status of optical input power.

Example #1: In this example, the module in iHub #2 slot 4 reports the alarm status of optical input #1 power as "MajorLoLo" (e.g. Major alarm with power reading below the low low threshold).

```
Transcend[slot-2] >[ihub-2 slot-4] >OPinPowerAlarm 1
OPinPowerAlarm:
[2] MajorLoLo
```

SwitchAlarm: Displays the alarm status of optical switch. This alarm is raised if switch is in faulty state.

Example #1: In this example, the module in iHub #2 slot 4 reports the alarm status of optical switch as "Normal"

```
Transcend[slot-2] >[ihub-2 slot-4] >SwitchAlarm
SwitchAlarm:
Normal
```

ModuleTempAlarm: Displays the alarm status of module temperature.

Example #1: In this example, the module in iHub #2 slot 1 reports the alarm status of module temperature as Normal.

```
Transcend[slot-2] >[ihub-2 slot-1] >ModuleTempAlarm
ModuleTempAlarm:
    Normal
```

SERVICE & SUPPORT

3. Service & Support

3.1 Contact ATX Networks

Please contact ATX Technical Support for assistance with any ATX products.

TECHNICAL SUPPORT

Tel: 289.204.7800 – press 1
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only
Email: support@atx.com

SALES ASSISTANCE

Tel: 289.204.7800 – press 2
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only
Email: insidesales@atx.com

FOR ASSISTANCE WITH AN EXISTING ORDER

Tel: 289.204.7800 – press 3
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only
Email: orders@atx.com
Web: www.atx.com

3.2 Warranty Information

All of ATX Networks' products have a 1-year warranty that covers manufacturer's defects or failures.



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