

# **3Com AccessBuilder 6100**

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## **Release Notes**

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### **AccessBuilder 6100 Multimegabit Inverse Multiplexer**

**Release 2.01.01**

## 1.0 Introduction

3Com initial introduction of the ACCESSBUILDER 6100 Multimegabit Inverse Multiplexer (Release 1.0 & 1.01) included the following features:

- Inverse Multiplexing across nxT1 services
- On-board SNMP agent software for integrated network management
- Full 10Mbps Ethernet communications across the wide area
- Optional Ethernet data interface for native LAN transport
- Optional HSSI, V.35 and RS-422/449 interfaces for applications flexibility
- Automatic Frequency Adjustment (AFA) for maximum network uptime
- Diagnostic tools such as alarm reporting, T1 performance monitoring, and loopback settings
- Integral T1 Channel Service Unit (CSU) support
- Integrated Web page for online documentation

### Release 1.20 :

- Increased AFA activation thresholds of 10e7 & 10e8 (see Table 1)
- Current & History Alarms will be shown as indicated by the state of AFA
- Disabling AFA will result in T1s being added back into bandwidth aggregate
- Ethernet (data port only) packet counts/statistics for user interface and SNMP
- nxT1 packet counts/statistics for user interface and SNMP

### Release 1.30 :

- Corrects 65/66 byte packet problem

### Release 2.00.00 :

1. ACCESSBUILDER 6100 and BMX 28 interoperability
  - Send alarm count information to the ACCESSBUILDER 6200
  - Telnet via HDLC with the BMX 28
2. Change default of the T1s to disabled
3. Change default of the Far End loopback detection to enabled
4. Add "R" for screen refresh
5. Enhanced CA lead options for operation with Cisco routers and Cascade switches

**Version 2.0 is not backward compatible earlier versions. The problem is eliminated by having the primary bank loaded with release 2.00.00 and the secondary bank with 1.03.01. For networks older than 2.00.00 use the secondary bank with 1.03.01.**

The User Information section includes important general information about the release which a user should become familiar with before installation.

This release also includes a list of the current known problems associated with Release 1.0 through 2.00.00 of the ACCESSBUILDER 6100.

For operational details of the above features please refer to the ACCESSBUILDER 6100 Multimegabit Inverse Multiplexer User's Manual.

## Release 2.00.01:

**This version converts**

- **Onstream Networks Inc. to 3Com Corporation**
- **LX10 to AccessBuilder 6100**
- **The enclosure color from Black to White**
- **All Labels and silk screens**
- **All menus and software banners**
- **Removes the Web page**
- **Password from “Onstream” to “Password”**

## Release 2.01.00:

**This software version only effects the four port models. It removes all menu selections associated with for T1 ports 5, 6 and 7. This version does not change the functionality of the product and does not incorporate any bug fixes.**

## Release 2.01.01:

**This is a maintenance release only and has no feature changes.**

## 2.0 User Information

**The following information is to be used as guideline only:**

1. ACCESSBUILDER 6100 provides the user the capability to view the entire nxT1 configuration and status, using the *All Ports Info Status* screen from the *Configuration Management* menu. This screen is very useful because it provides status information regarding a particular T1 availability. However, if you are using this screen and an AFA condition occurs, this screen will not provide the update in real-time. The user must enter the "R" key to refresh the screen.
2. 3Com recommends the use of approved nxT1 connectors and cables for use when terminating T1 networks. Any other cable that does not meet 3Com recommended cable types may produce adverse results, and cause AFA and Alarm conditions.
3. To disconnect a telnet session to the ACCESSBUILDER 6100 SLIP or NMS Ports, enter *CRTL* ']' & then 'q'.
4. The ACCESSBUILDER 6100 offers the unique ability to remotely communicate to the far-end ACCESSBUILDER 6100 using an embedded HDLC channel. This channel allows customers to remotely manage and control product at remote sites where on-site technical personnel or out-of-band communication paths are inaccessible or cost-prohibitive. Given this the product allows customers the ability to manually configure which of nxT1 circuits will carry the HDLC channel, it will also allow customers the ability to enter a numeric value of "0" which will *disable* this channel. Please ensure that the under normal operating condition that you either choose a circuit manually or have the product optioned for automatic circuit selection.
5. For information regarding errors based on thresholds, please refer to Table 1 below:

BER	Total errors in 1 second	Total errors in 2 minutes	Total errors in 2 minutes	Total errors in 4 minutes	Total errors in 15 minutes
10E-5	15	900	1800	4500	13500
10E-6	1.5	90	180	450	1350
10E-7	0.15	9	18	45	135
10E-8	0.015	1	2	5	13

6. RS 232 port parameters, e.g., baud, stop bits, etc., can only be adjusted via local VT 100 access to the unit.
7. Before downloading firmware into the ACCESSBUILDER 6100(s) on site, please ensure that all user configurable parameters are written/printed and stored for re-entry into the product. (All versions of software before Release 1.20 do not maintain user configurable parameters when upgrading to newer releases of code.)
8. Listed below are the new screens associated with Release 1.20 software:

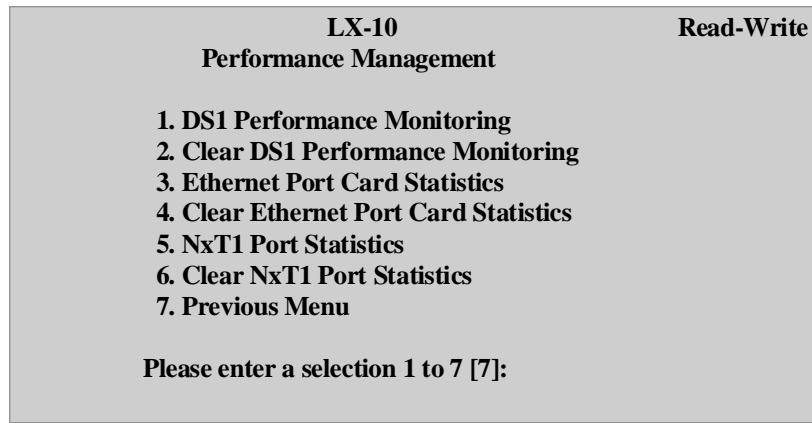


Figure 9-1, Addition of packet counts for Performance Management

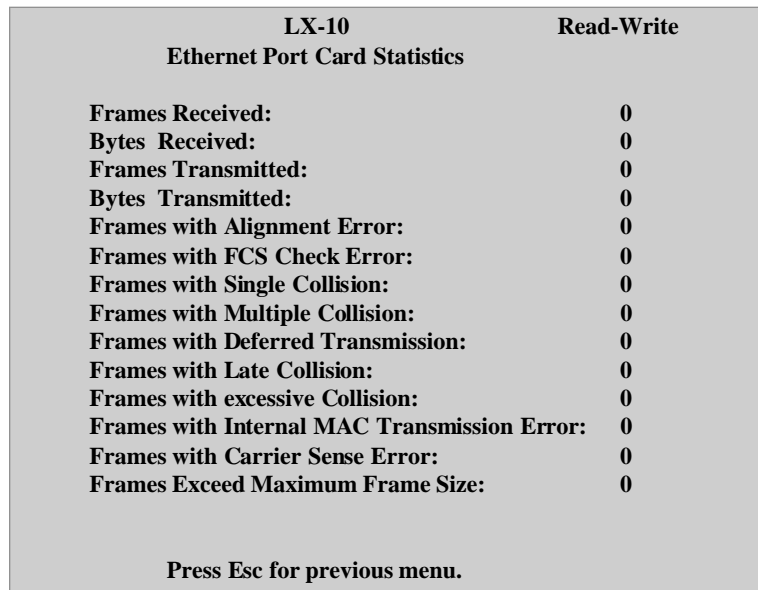


Figure 9-2, User interface ethernet data port packet counts/statistics

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                LX-10                               Read-Write
            NxT1 Port Statistics

Frames Received:           0
Bytes Received:           0
Frames Transmitted:       0
Bytes Transmitted:       0
Frames with CRC Error:    0

Press Esc for previous menu.

```

9-3, User interface nxT1 packet counts/statistics

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                LX-10                               Read-Write
            Configuration Management

1. DS1 Port 1 Configuration
2. DS1 Port 2 Configuration
3. DS1 Port 3 Configuration
4. DS1 Port 4 Configuration
5. DS1 Port 5 Configuration
6. DS1 Port 6 Configuration
7. DS1 Port 7 Configuration
8. DS1 Ports Status
9. DS1 Timing Configuration
10. Inverse Mux Configuration
11. AFA Management
12. HDLC Configuration
13. Previous Menu

Please enter a selection 1 to 13 [13]:

```

Figure 9-4, Additions to Configuration Management for timing

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                LX-10                               Read-Write
            DS1 Timing Configuration

Clock Source: internal

1. Set Clock Source
2. Previous Menu

Please enter a selection 1 to 2 [2]:

```

Figure 9-5, DS1 clock source selection (Internal or Loop)

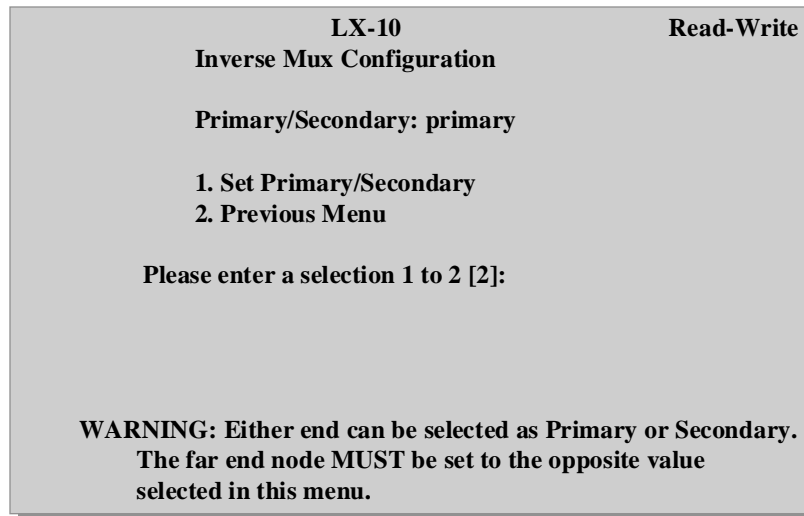


Figure 9-6, Inverse Mux configuration for timing (realignment/comm)

## 3.0 Unresolved Issues

1. Versions 2.00.01 and 2.00.00 are not backward compatible versions earlier than 2.00.00. The primary bank is loaded with release 2.00.00 or 2.00.01 and the secondary bank 1.03.01. For older networks the use the secondary bank with 1.03.01.
2. Trivial File Transfer Protocol (tftp), which is used for software updates cannot be aborted from the user interface. To abort, cancel the tftp client session.
3. The ACCESSBUILDER 6100 offers the users a unique capability of establishing a connection to the remote ACCESSBUILDER 6100 using the in-band HDLC communication channel and telnet (ip) and the VT100 RS 232 communication port. This allows customers to administratively manage a remote unit without the need of external devices, such as, modems, etc. However, under certain conditions, such as, a degraded, errored or AFA T1 line transporting the HDLC channel, a remote unit may become unreachable upon the initial or during the remote connection process. If this occurs, the user may not be able to perform any other function until after the communication session timeout occurs, approximately 1 1/2 minutes (90 seconds).

## 4.0 Resolved Issues (Release 1.01)

1. Under certain conditions when the user ethernet data traffic exceeded the wide-area network bandwidth, a buffer overrun condition would occur and the ethernet NIC would stop transmitting information. Problem: Fixed  
Ref.: TTPso02236

## 4.1 Resolved Issues (Release 1.20)

1. If invalid ethernet packets exceed 1518 in size, the buffer capacity will become full and no longer process information destined for wide-area transport. (The ethernet data port accepts *valid* 802.3 packets, but has been enhanced to accommodate unusual sized packets no greater than 2048bytes in length. All Problem: Fixed  
Ref: TTPso02281

others will not be accepted or transmitted across the wide-area.)

2. When using the ethernet data port model of the ACCESSBUILDER 6100, and IP address(es) have not been configured for ethernet NMS interface the product will transmit TRAPs to the ethernet data port. Problem: Closed  
Ref: TTPso02230

## 4.2 Resolved Issues (Release 1.30)

1. Under certain conditions, most often times under lab tests, the ethernet data interface of the ACCESSBUILDER 6100 may not be capable of forwarding 65 or 66 byte packet sizes. This was the case in earlier versions (pre- 1.30) software. The test case that identified this problem was the Cisco router verbose ping using the sweep method. It was even more common when large packet sizes (>1518) are segmented and followed with a “runt” packet of 65 or 66 bytes. If you’re running in a TCP environment, the packets will eventually get through the network. It is more predominate in a lab test where this is observed..) Problem: Fixed  
Ref: TTPso?

## 4.3 Resolved Issues (Release 1.03.01)

1. Support of a new type of Flash EPROM. This change has no effect on the operation of the product. Problem: Fixed  
Ref: TTPso?

## 4.4 Resolved Issues (Release 2.00.00)

1. N/A Problem:  
Ref:

## 4.5 Resolved Issues (Release 2.00.01)

1. After extended periods of SNMP polls, the SNMP engine may hang Problem: Fixed  
Ref:

## 4.6 Resolved Issues (Release 2.01.00)

1. N/A Problem:  
Ref:

## 4.7 Resolved Issues (Release 2.01.01)

1. Support of a new type of Flash EPROM. This change has no effect on the operation of the product. Problem: Fixed  
Ref: TTPso?