

DXC-100 Module

DT3

T3 Multiplexer Module



- Direct connection to T3 networks
- Terminal multiplexer for grooming E1/FE1, T1/FT1, or $n \times 64$ kbps data traffic
- Framing and multiplexing format complies with M13 or C-Bit parity per ANSI T1.107 and ANSI T1.107A
- Multiplexes up to 21 E1 channels in compliance with ITU-T Rec. G.747, or 28 T1 channels in compliance with ITU-T Rec. G.802
- Up to 6:1 hardware redundancy available via the DXC-100PSX protection switch unit

DT3 is a single-port T3 interface module set that enables DXC-100 to multiplex any timeslot from up to 28 T1 links or 21 E1 links into a single T3 stream with either C-bit parity or M13 framing. Mixed (E1 and T1) traffic applications are also supported, as per ITU G.747. The module contains a microprocessor and flash memory for program storage.

The DT3 module is a terminal multiplexer, that feeds a T3 network or accesses channelized DS3 ports of higher order switches in PDH or SONET networks. In this capacity, it provides traffic grooming and multiplexing of E1/Fractional E1, T1/Fractional T1, and $n \times 56/64$ kbps data.

T3 multiplexing for
the DXC-100 family
of modular
cross-connects



data communications

Innovative Access Solutions

DT3 T3 Multiplexer Module

Any internal E1 or T1 channel of the DT3 module can be used as the source clock or the fallback clock for the DXC system. The user can choose the master clock or the fallback clock from any internal E1 channel of the T3 interface, or from any other module.

Maintenance and diagnostics include individual E1/T1 loopbacks and T3 local and remote loopbacks, to enable rapid location of faults.

Setup, control, and diagnostics can be performed using an ASCII terminal connected to the supervisory port. Alternatively, these can be performed by Telnet or the RADview SNMP network management system connected to the Ethernet 10/100BaseT port.

The module assembly occupies a single slot in the DXC-100 chassis. Each module set consists of a front main module and a rear interface module.

Up to 6:1 hardware redundancy is available via the DXC-100PSX unit.

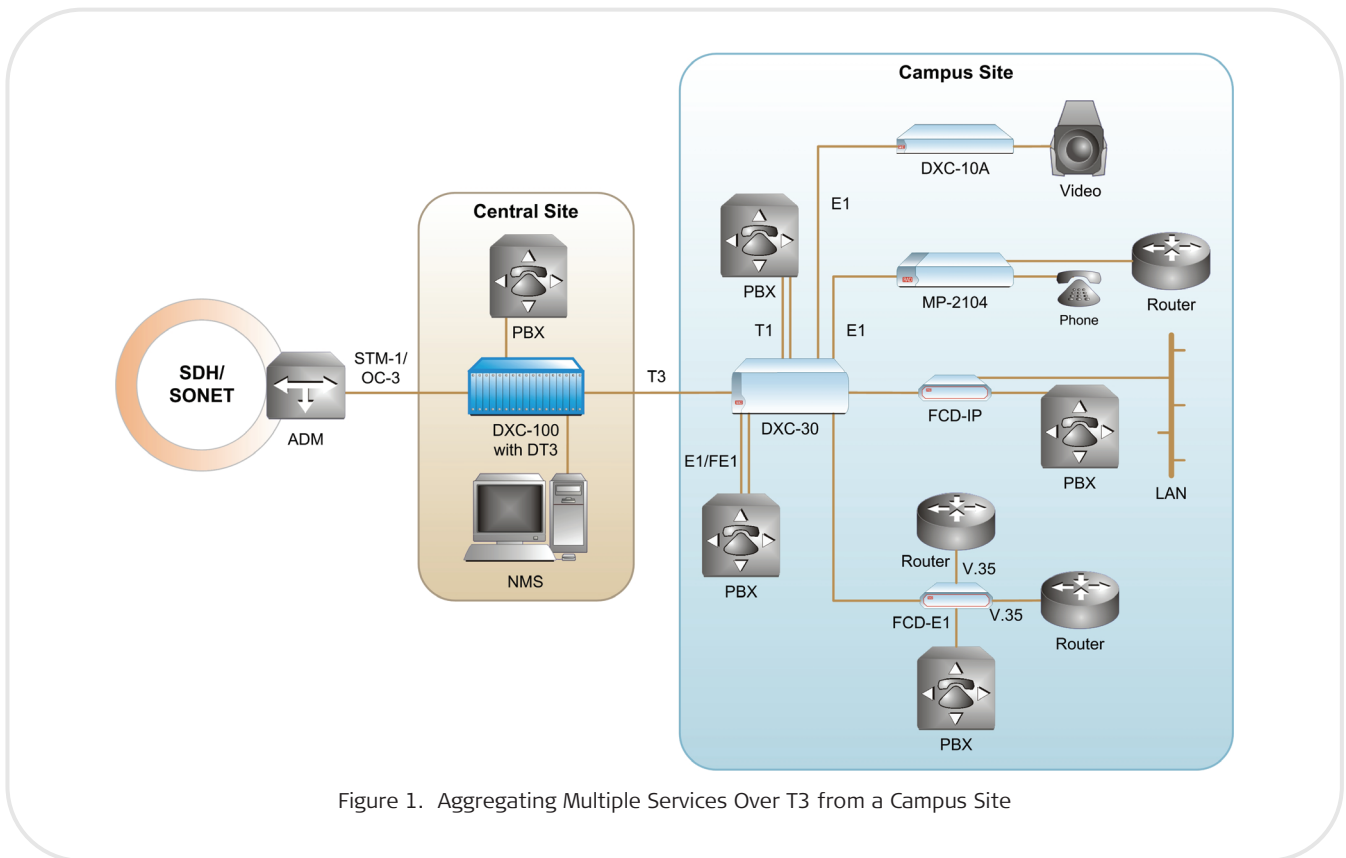


Figure 1. Aggregating Multiple Services Over T3 from a Campus Site

Specifications

T3 INTERFACE

Channels per Module

1

DS2 Groups

Up to 21 E1s; 3 per DS2 mapped group
Up to 28 T1s; 4 per DS2 mapped group

Framing Option

Framing per ITU-T G.751

Data Rate

44.736 Mbps

Jitter Performance

As per ITU-T G.823, Telcordia
TR-TSY-000499

Line Code

HDB3

Line Impedance

75Ω

Pulse Shape

ITU-G.703, ANSI T1.404

Connectors

A pair of BNC, female

GENERAL

System Timing

Internal clock (Stratum 3)
Station clock
Receive clock (from any link or from any
internal E1/T1 link of T3 interface)

Diagnostics

Loopbacks:
T3 local/remote loopbacks
Local loopbacks on each payload (E1/T1)
port
Integral BERT
T3 performance monitoring: complies with
G.826

Redundancy Capability

Up to 6:1 ratio via the DXC-100/PSX unit

Indicators

READY (red/green) – indicates the status
of the module set

STATUS (red/green) – indicates the link
status separately for the T3 line and the
aggregate payload

TEST (yellow) – indicates the test status
separately for the T3 line and the
aggregate payload

Physical

Front main module:

Height: 26.3 cm / 10.3 in
Width: 2.5 cm / 9.8 in
Depth: 21.3 cm / 83.8 in
Weight: 0.46 kg / 1.00 lb

Rear interface module:

Height: 26.3 cm / 10.3 in
Width: 2.5 cm / 9.8 in
Depth: 12.7 cm / 50.0 in
Weight: 0.35 kg / 0.77 lb

Power Consumption

11.6W

DXC Family Comparison Table

Features	DXC-8R	DXC-10A	DXC-30/30E	DXC-100
Height	1U	1U	3U/6U	6U per nest
Maximum number of ports	32	40	120/*	688 (8 nests)
Number of I/O slots	4	5	15	86 (8 nests)
System redundancy	Built-in	None	Optional	Optional
E1, T1, E3, T3, STM-1 modules	✓	✓	✓	✓
XDSL, inverse multiplexing modules	✓	✓	✓	–
n x 56/64 kbps modules	✓	✓	✓	✓
Router, OC-3 modules	–	–	–	✓
ASCII, SNMP, RADview management	✓	✓	✓	✓

** Maximum possible ports are 240 with the ISDN option only.*

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Ordering

DXC-100M-T3/?

6U T3 multiplexer module with G.747 support

Legend

- ? Module type (default is for complete main and interface module set):
- M** main, front-mounted module only
- IO** interface, rear-mounted module only

OPTIONAL ACCESSORIES

DXC-100PSXM-E3T3/*

3U E3/T3 interface module for DXC-100PSX protection switch 1:N unit

- * Module type:
- P** primary module
- R** redundancy module (one per group of primary modules)

Note: One BNC interconnection cable, CBL-100PSX-E3T3, is provided with each DXC-100PSXM/E3T3/P module

CBL-DXC100-E3T3

DXC-100 BNC-75Ω (male) to BNC-75Ω (male) interconnection cable for DE3 and DT3 modules, 5m (15 ft) long

Note: Two cables are required for each interface module.

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