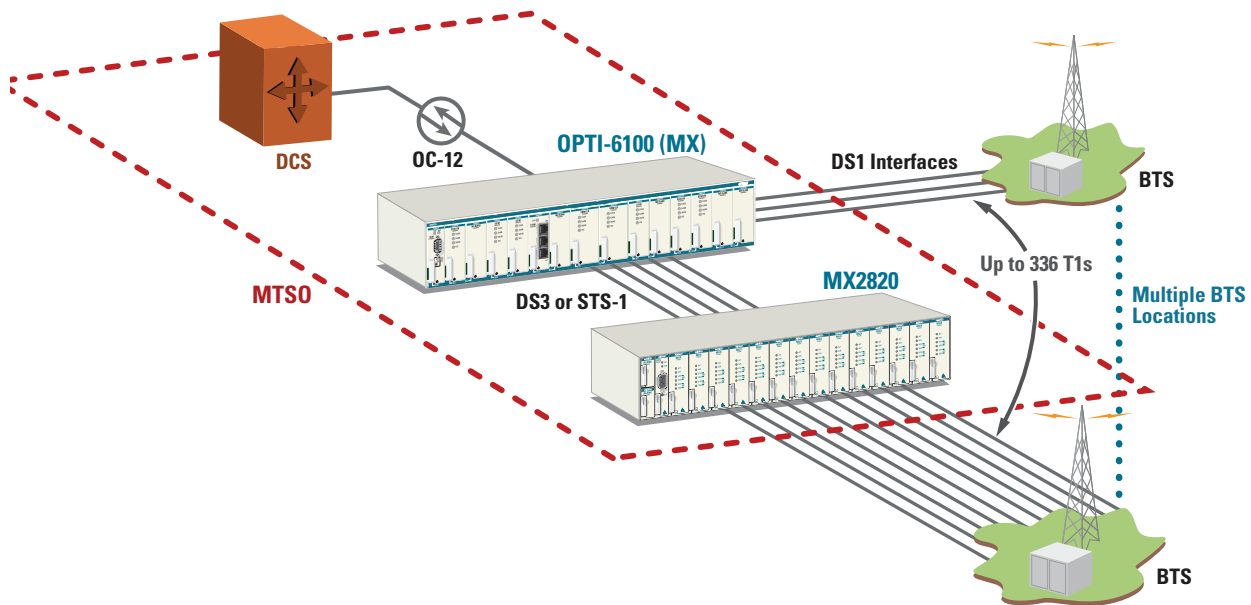


OC-12 to 336 T1

Economical Digital Cross Connect Augmentation



Digital Access Cross Connect Systems (DCS) provide valuable switching and grooming capabilities to a network, but they are often burdened by capacity limitations. Upgrading the existing equipment to remove the limitations can be expensive and portions of the network affected by capacity issues, such as sparsely populated areas, might not justify the upgrade costs associated with large traditional DCS platforms. Many mobile carriers have found that the combined capabilities of the ADTRAN® OPTI-6100® and ADTRAN MX2820 provide an ideal alternative for efficient expansion of the DCS network capability. The OPTI-6100 can utilize a single OC-12 interface from an existing DCS to provide 12 DS3 and 84 DS1 capabilities. The MX2820 can, in turn, utilize 9 of the DS3s from the OPTI-6100 to provide 252 DS1s, giving this configuration the capability of delivering up to 336 DS1s at a fraction of the typical upgrade cost.

The ADTRAN OPTI-6100 and ADTRAN MX2820 combination is an effective solution for optimizing a Service Provider network while making efficient use of existing bandwidth and equipment.

Business Case:

The optical to DS3/DS1 DCS functionality of the OPTI-6100/MX2820 is ideal for provisioning additional T1 capacity or to expand or augment existing DCS equipment. The result is capital expenditure savings by a factor of 4x or more, and the preservation of valuable DCS ports and rack space to accommodate additional cell-site radios or equipment required for capacity and service expansion.

Solution Features

- Reduce OpEx and CapEx by utilizing existing capacity
- Economical alternative to expensive core capacity upgrades
- Carrier class solution providing DS1 expansion
- Efficiently manage bandwidth for TDM backhaul of cell sites

Support Features

- Unlimited world-class technical telephone support
- ADTRAN 10-year warranty
- Premium manufacturer with extensive carrier network expertise



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OC-12 to 336 T1

Economical Digital Cross Connect Augmentation

Advantages of the OPTI-6100®/MX2820 Solution:

- Efficient application reduces CapEx
- Modular design provides expansion capability
- Compact package conserves valuable space
- Preserves ports on existing DCS equipment

OC-12 to 336 T1 Bill of Material

Qty.	Model	Part	Description
1	MX2820 23" Chassis, SCU, 18 MUX Cards	4186002L18	P/N 1186001L2 MX2820 23" Chassis (1); P/N 1186003L1 SCU (1); P/N 1186002L1 MUX Card (18).
1	23" Fan Assembly	1186006L1	Fan Pack for MX2820. Fits in a 23" rack w/1 RMU design. Used to cool one MX2820 mounted with other equipment in a rack. Includes one fan (1186008L1) and fan filter (1186009L1).
1	OPTI-6100 (MX Chassis)	1184501L1	OPTI-6100 (MX Chassis) (19" or 23") Includes mounting brackets.
1	OPTI-6100 (SCM)	1184500L1	The System Controller Module (SCM) is the user and OS system interface to the OPTI-6100 chassis. Through the SCM, the user or remote OS can provision modules, monitor alarm status, query for performance, and initiate tests for any module in the chassis.
2	OC-12 UPSR IR Enhanced	1184504L6	OC-12 SONET Intermediate Reach (IR =15km, 12db max), 1310 nm, Single Mode Optical Module. It terminates the OC-12 fiber circuit(s) to feed the OPTI-6100 chassis. It operates in Add/Drop mode (Unidirectional Path Switched Ring) or Terminal mode. It converts the optical signal into digital electrical signals for distribution through the backplane wiring to the tributary modules. With the use of two modules, equipment protection and facility (1+1) is available. This module also provides an any-to-any VT cross-connect matrix.
1	OPTI-6100 Enhanced FANM with Alarms	1184507L2	Enhanced fan pack with alarms for OPTI-6100 (MX chassis). Fits 19" or 23" rack with 1 RMU design. Includes P/N 1184507L3 FANM Heat Baffle (1); 1184508L1 ASSY FANM Replacement Fan (1); and P/N 1184509L1 FANM Replacement Filter.
6	OPTI-6100 2nd Gen DS1 VT1.5 TB	1184515L4	OPTI-6100 DS1 VT1.5 mid-speed Multiplexer with framers. Chassis accepts either one for non-redundant or two for 1:1 redundancy for a maximum of six cards per chassis or 84 DS1s VT1.5 facility drops.
6	OPTI-6100 3 DS3 Transmux	1184532L1	Three-port tributary module for the OPTI-6100. Converts M13 mapped DS3 to VT1.5 STS-1 payload. Second card added for 1:1 redundant operation. Maximum of eight cards per shelf (four working, four protect).

**Equipment list does not include cabling*



ADTRAN is an ISO 9001, ISO 14001 and a TL 9000 certified supplier.

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