

ORION TELECOM NETWORKS INC.

STM-1, VCL100LT (upto 28 E1)



Product Overview

The VCL100LT is an ultra-compact and cost-effective customer premises bandwidth provisioning equipment designed to meet low or medium capacity bandwidth service demands.

This unique product is part of a family of STM-1/4 Multi-Service Provisioning and Access Nodes from Orion. The VCL100LT supports end-to-end provisioning and management of voice and data services across all the segments of the optical network - from the customer premises to the core. It combines innovative optical networking



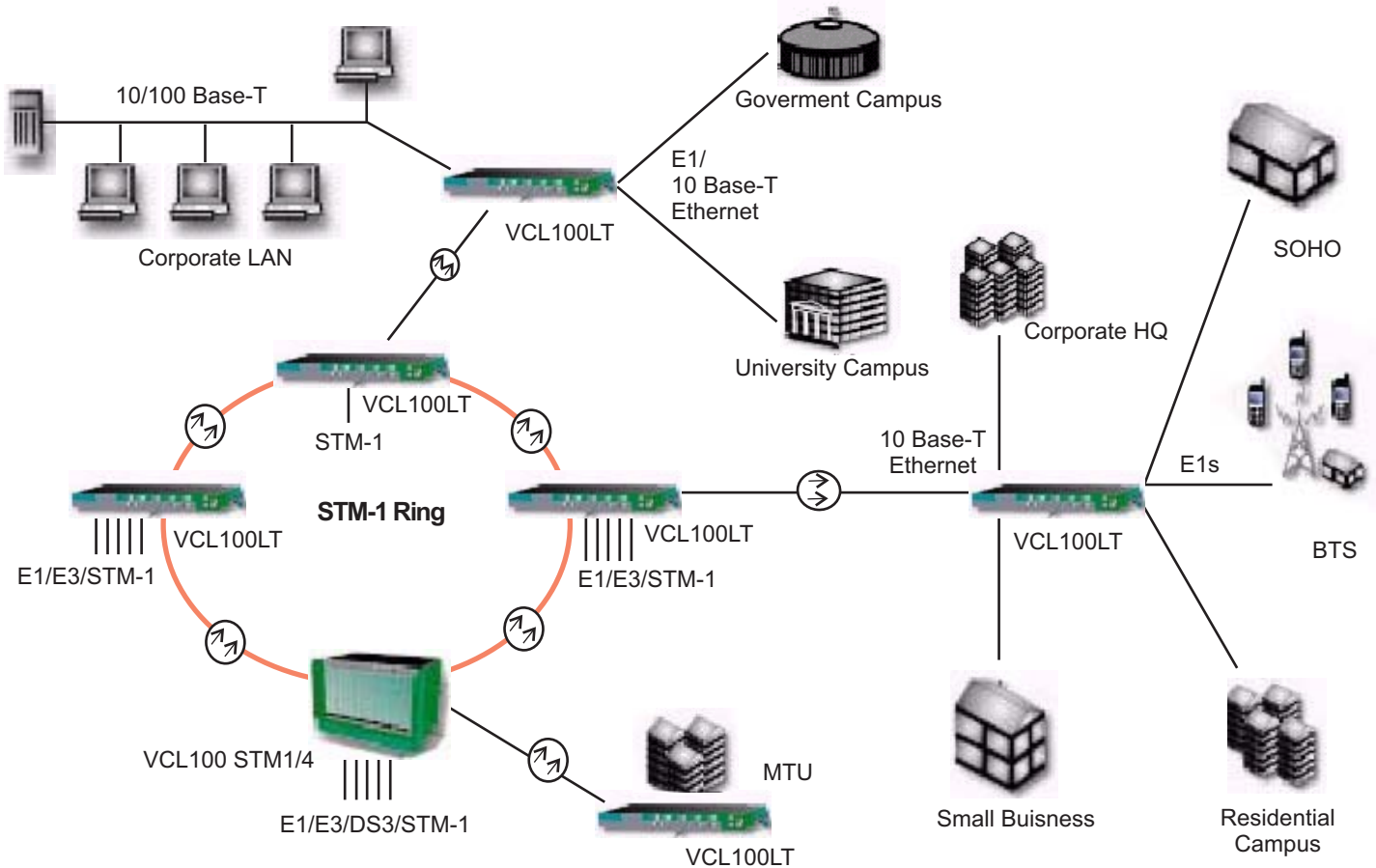
software with the intelligence of SDH to deliver a flexible solution to today's service providers.

The VCL100LT can be configured as a Terminal Multiplexer (TMUX) or an Add-Drop Multiplexer (ADM), with E1, E3 or 10 Mbps Ethernet service interfaces and trunk interfaces at STM-1 rate. The product has a built in non-blocking cross-connect at VC-3 and VC-12 granularity for efficient traffic grooming.

In view of the growing demand of packet services VCL100LT provides an Ethernet tributary interface to carry inter-office traffic from corporate LANs, campus networks or from ISPs.

Features	Advantages	Benefits
Low priced Terminal Multiplexer and Add-Drop Multiplexer	Can be placed in customer premises or access nodes	A practical and cost-effective solution catering to low volume traffic requirements
Seamless integration with the VCL100 family of equipment and management	Allows growth of network with more choices from a common family of products and with a single type of element management system	Easy and cost effective option to grow to a larger network with minimum increase in overhead costs
1U chassis- available in rack and wall mounting options	Compact size	Better utilization of available rack space and easy installation in customer premises
Integrated and multi-service delivery	Provision both voice and data services from the same platform. Efficient use of transport bandwidth by supporting per-port rate adaptive Ethernet services	Future proof architecture protecting investment
Linear and ring topologies Multi-level protection schemes- Unprotected, MSP, SNCP	Topology support to cater to customer network scenarios. Carrier-grade protection schemes enable you to cater to differing customer protection requirements	Flexible and cost-effective network solutions. Creation of differentiated services to enhance the portfolio of service offerings
Advanced networking software with support for open standards such as- GMPLS and OSPF	Enables automatic topology discovery, shared mesh restoration and Point-and-Click-Provisioning (PNCP). User friendly GUI based Network Element Software for local and remote provisioning	Reduction in operational costs and increase in efficiency through lower provisioning time and operator intervention

Applications



Technical Specifications

Network Topology

- Linear, Ring, Mesh

Network Element Configurations

- Terminal Multiplexer (TMUX)
- Add-Drop Multiplexer (ADM)

Aggregate Interfaces

- 2 X STM-1 e/o
- Optical - S1.1, L1.1, L1.2 (ITU-T G.957 compliant)

Tributary Interfaces

- E1 / DS1, E3 / DS3
- STM-1o
- STM-1e/E4
- 10 Base-T Ethernet

Cross Connect

- 252 X 252 VC-12
- Fully non blocking
- Line to Line, Line to Tributary, Tributary to Line, Tributary to Tributary

Maintenance

- Higher-order and Lower-order POH, all SDH level performance monitoring (as per ITU-T G.826 & ITU-T G.784)
- Software downloads

Network Management

- Element Management System: NES (Network Element Software), supports full FCAPS functionality.
- RS-232 port for craft interface
- In-band control supported using SONET/SDH Overhead bytes
- E1 management channel support with drop facility
- Alarm Signaling Indicators and External Contacts

Power Supply

- -48V DC nominal, -36V to -60V DC
- Power consumption – less than 35W

Timing & Synchronization

- Timing & Synchronization of System (as per ITU-T G. 813)
- Internal and External Timing interfaces – Two E1 BITS interfaces (as per ITU-T G.703)

- Internal oscillator capable of supplying a ITU-T G.813 compliant Stratum-3 SEC
- Support of SSM byte

Order wire support, Alarms and User data Channel

- E1/E2 bytes used for Express order wire (Omnibus / Selective calling facilities)
- F1 byte for user data channel
- Five potential-free outputs and two potential-free inputs

Physical Dimensions

- Dimensions (H X W X D): 44 mm x 435 mm x 290 mm (1.75 in x 17.4 in x 11.4 in)

Environmental

- Operating Temperature: 0° to 50°C
- Relative Humidity: 10% to 90%, non condensing

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