VALIANT COMMUNICATIONS LIMITED

VCL-MegaConnect
16 Port E1 / T1
(DACS - Digital Access Cross Connect)
APS 1+1 (Automatic Protection Switching)

www.valiantcom.com

Overview

E1 Redundancy 1+1 (E1 Protection) solution that we offer is a 16, E1 Port E1 Digital Access Cross-Connect Switch with 1+1 Automatic Protection Switching which allows the USER to specify and define the PRIMARY / PROTECTED and the REDUNDANT / STANDBY E1 Ports through which the traffic is required to be routed, alternately, in the event of the failure of the PRIMARY / PROTECTED route.

Applications include:-

1. Providing 1+1 alternate paths between any two Transmission mediums (active + standby).
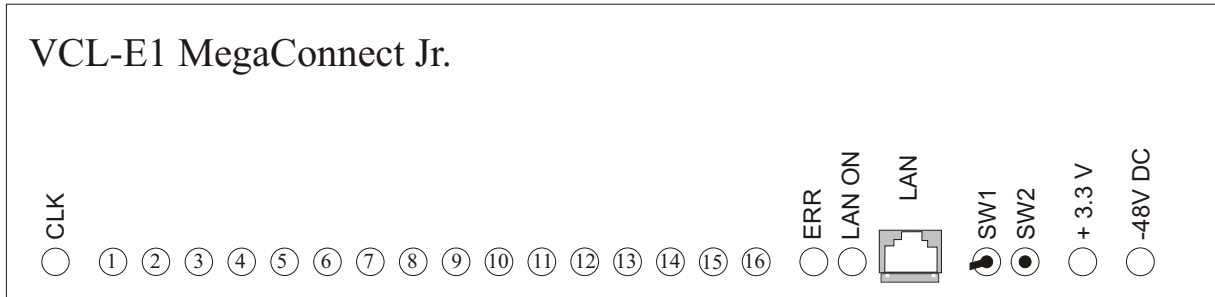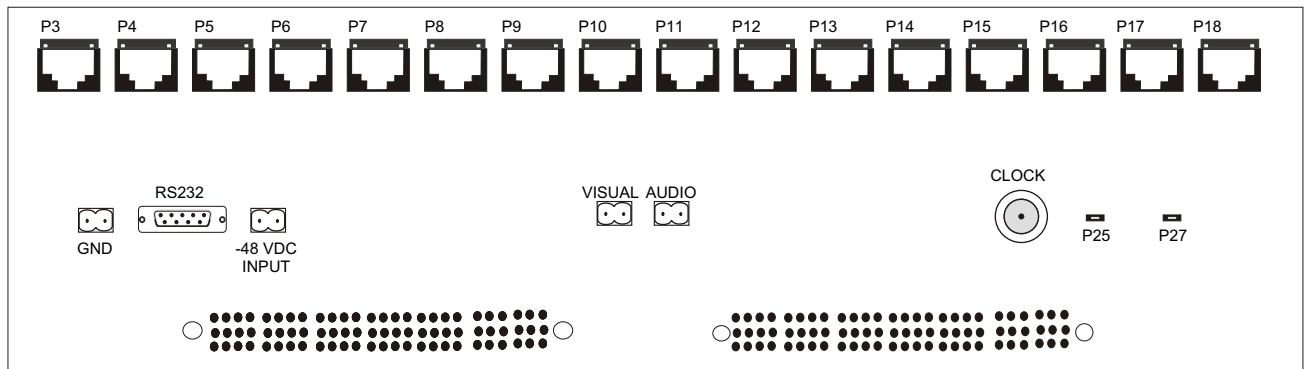
e.g:-

Fiber-Fiber.

Radio-Fiber.

Radio-HDSL

Fiber-HDSL etc.

The 16 Port E1 Digital Access Cross-Connect Switch with 1+1 Automatic Protection Switching allows the selection of CRITICAL time-slots to be selected and placed on the E1 link on the redundant / standby route in the event of the failure of the primary route. Example : this product shall allow the USER to select and specify the time-slots from multiple E1 links in the PRIMARY ROUTE, which may be considered critical in nature and be re-routed to the REDUNDANT / STANDBY ROUTE in the event of the failure of the PRIMARY ROUTE.

Automatic Protection Switching Application

VCL-E1 MegaConnect Jr.

CLK ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ERR LAN ON LAN SW1 SW2 + 3.3 V -48V DC

VCL-MegaConnect-Jr Front View

P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 P14 P15 P16 P17 P18

RS232

GND -48 VDC INPUT

VISUAL AUDIO
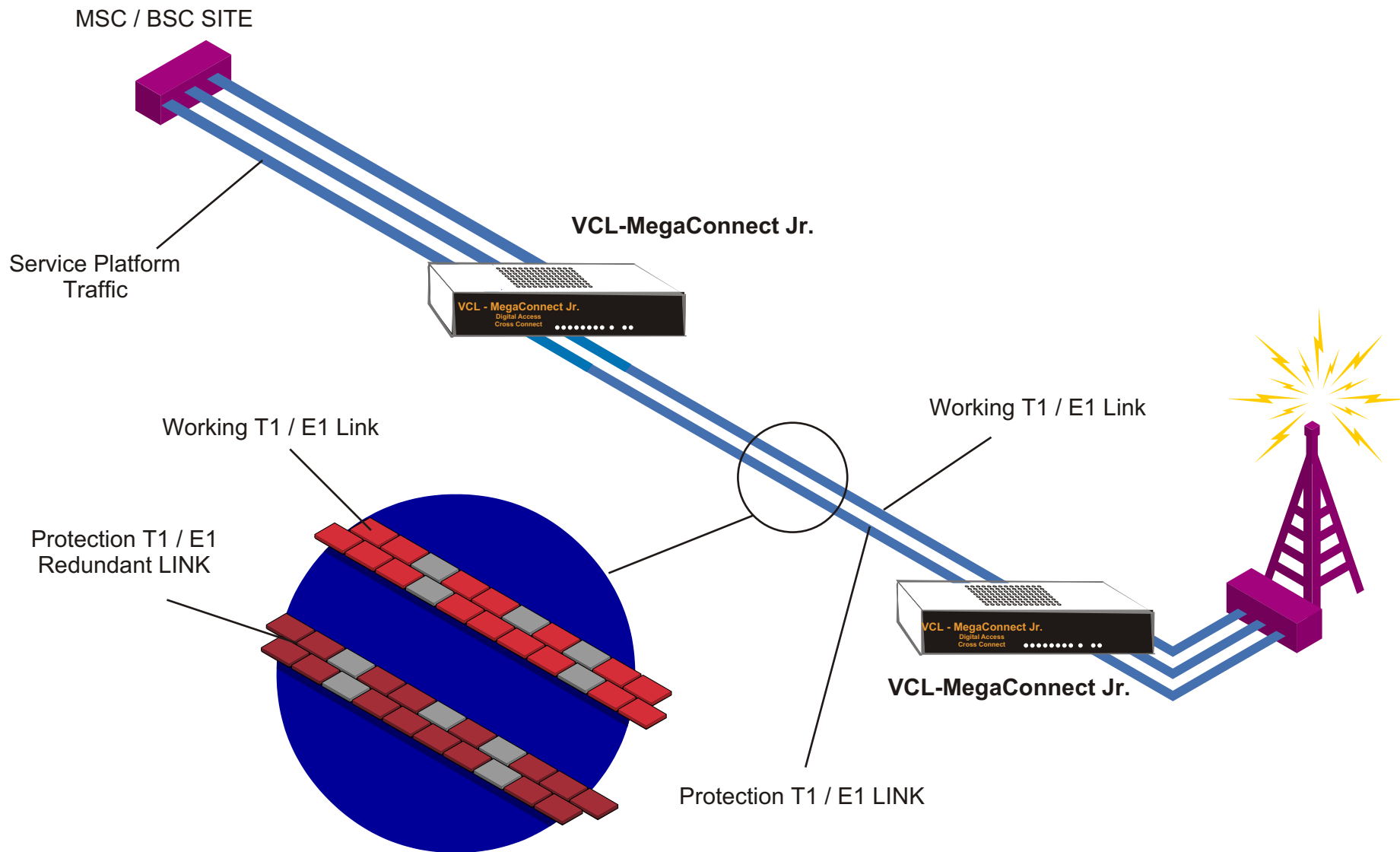
CLOCK

P25 P27

VCL-MegaConnect-Jr Rear View

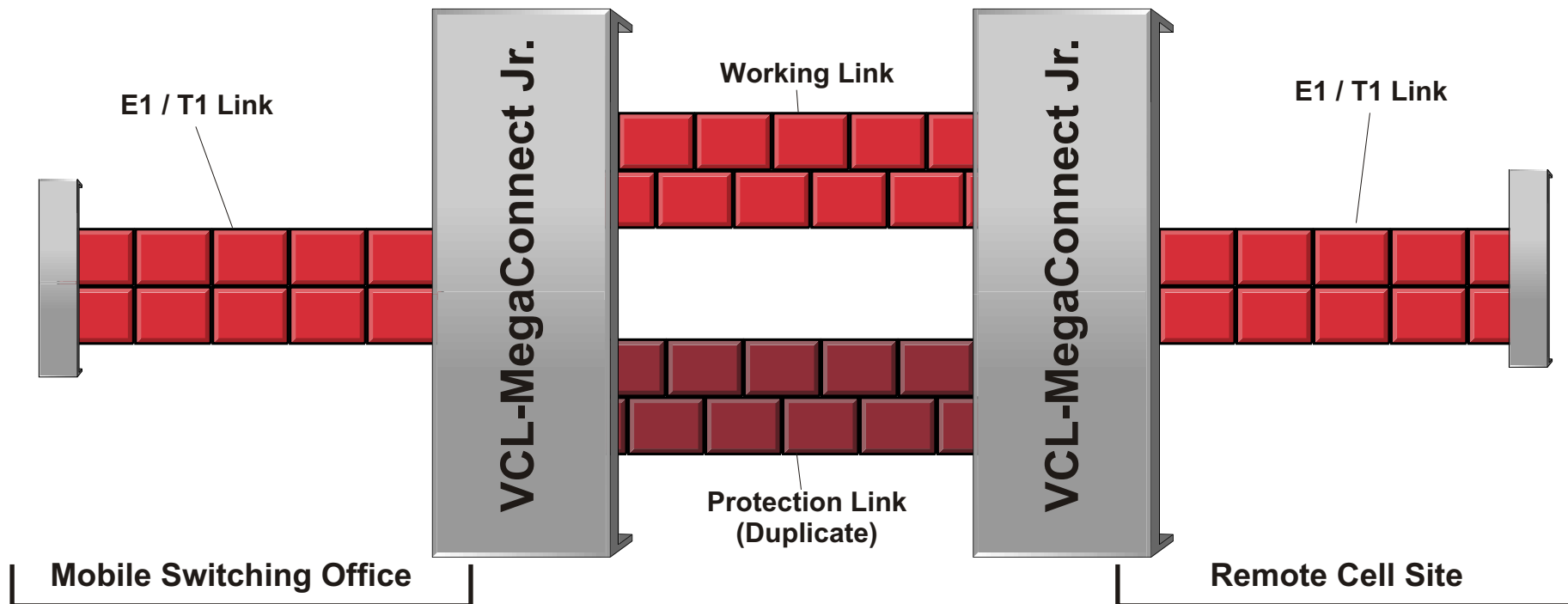## Maximize mobile operator service availability and network resiliency through VCL-MegaConnect-Jr. Path - Protection enabled facility

Two User selectable VCL-MegaConnect-Jr options are available for reliable networks operation

MSC / BSC SITE

VCL-MegaConnect Jr.

Service Platform
Traffic

VCL - MegaConnect Jr.
Digital Access
Cross Connect

Working T1 / E1 Link

Working T1 / E1 Link

Protection T1 / E1
Redundant LINK

VCL - MegaConnect Jr.
Digital Access
Cross Connect

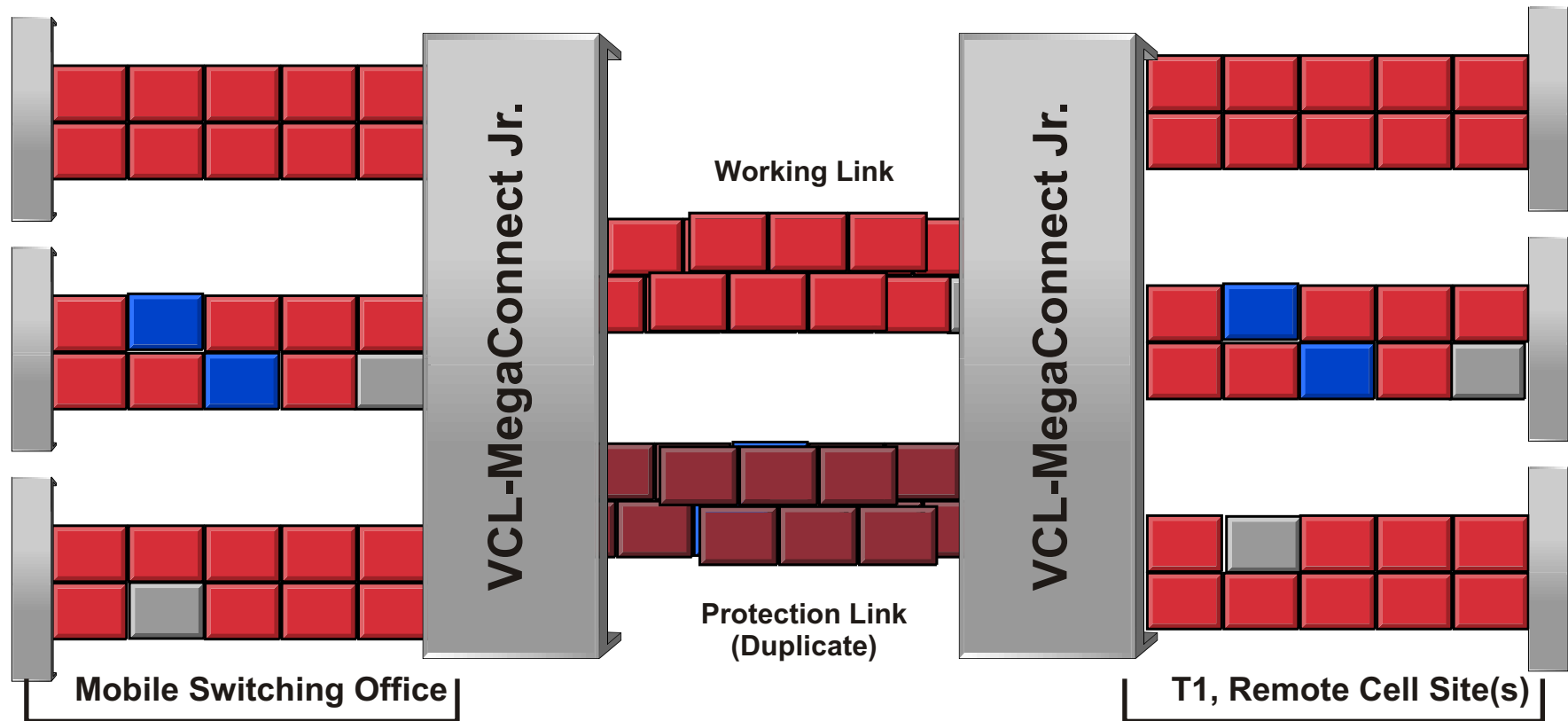VCL-MegaConnect Jr.

Protection T1 / E1 LINK

These ensure that mission critical voice, data, control and management traffic are properly supported and maintained even during T1 / E1 backhaul facility outages. When the working link fails, the protection link becomes active.

VCL-MegaConnect-Jr (With Path Protection Switching) - Normal Operation
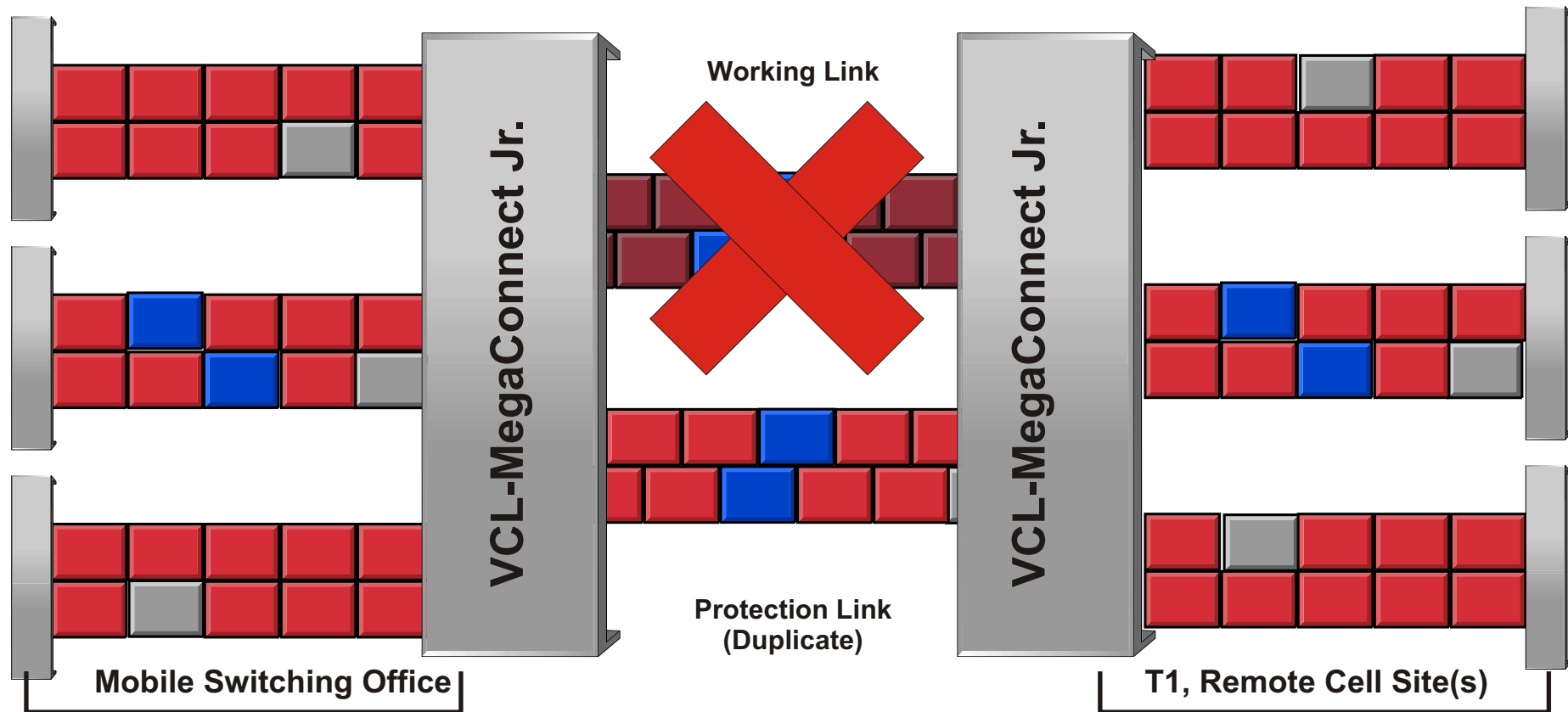

During normal Operation, VCL-MegaConnect-Jr sends duplicate traffic across both the working and dedicated protection E1 / T1 facilities while continuously maintaining the performance of both links to determine which link shall be utilized.

VCL-MegaConnect-Jr (With Path Protection Switching) - Normal Operation

Through the comprehensive digital access cross-connect and remote management capabilities integrated within VCL-MegaConnect-Jr, backhaul T1 / E1 facilities can be optimally groomed to reduce both Capital Expenditure and improve Network reliability.

VCL-MegaConnect-Jr (With Path Protection Switching) - Working Link Fault

In the event of a failed or degraded T1 / E1 link, the traffic is automatically transfered from the previously working link to the duplicate protection link in accordance with the pre determined operating parameter programmed by the network operator.

VCL-MegaConnect-Jr APS - Normal Operation

Working Link (More Critical)

Protection Link (Less Critical)

VCL-MegaConnect Jr.

Mobile Switching Office

Remote Cell Site

During normal Operation, VCL-MegaConnect-Jr APS passes independently traffic across both the working and protection E1 / T1 facilities while continuously maintaining the performance of both links to determine which to utilize for critical traffic

Valiant Communications Limited
Integrated 1+1 Route Protection Switching

Features	Benefits
Traffic Protection	Customer Relation
Alternate Facility	Competitive Advantages
Service Differentiation	Service Level Agreements
Increased Network Reliability	Backhaul Network Resilience
Media and Path Diversity	Technology Migration
Remote Management	

Technical Specifications -

E1 Interface

Line Rate	E1 (2.048 Mbps ± 50 bps)
Available Time-Slots	1-31
Framing	G.704
Electrical	G.703
Jitter	G.823
Impedance	120 Ohm
Connector	RJ-45 (F)

Time-slot selection:

ANY-TO-ANY through an internal, best byte, non-blocking TSI Switch.

Clock:

Internal	(Stratum3 level)
Loop-Timed	
External	75 Ohms - 2.048 Mhz
	- 1.544 Mhz

Specification and Regulation Compliance

Meets CE requirements
Complies with FCC, Part 68 and Part 15 subpart Aspecifications
Safety - UL 1459 Issue 2

Alarm Contact Closures

1 Alarm Relay,
Type - Form "C" relay,

Temperature

Operating 0^0C to 50^0C
Humidity   5% to 95% Non-Condensing

Command Language:

Command Line Interface (english text commands)

Power Consumption

Power Consumption   5 Watts

Mechanical Specifications

Width :   480mm
Depth :   280mm
Height :   90 mm
Weight: 5.00 Kg.

Notes :

Technical Specifications are subject to change.
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