

## HOW IT WORKS

VectorFibre Ethernet over SDH (EoSDH) service connects different sites over our reliable SDH (Synchronous Digital Hierarchy) network.

Ethernet over SDH can be delivered in different configurations to suit your needs:

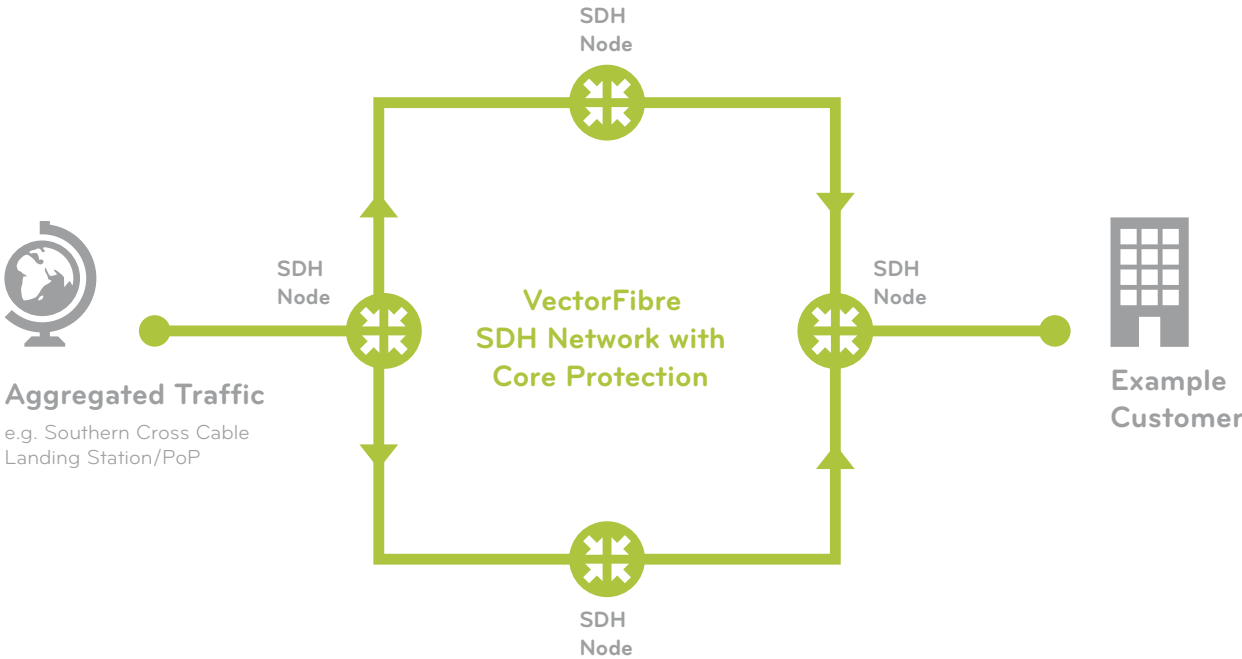
- Point-to-point EoSDH connects two sites in New Zealand on SDH, providing an Ethernet interface at both sites. This is ideally suited for providing high performance connectivity within New Zealand locations.
- Virtual PoP (VPoP) EoSDH enables service providers to aggregate all the customer tail circuits onto an SDH interface. This makes a VPoP option ideal for international carriers delivering tail circuits to New Zealand.

You can choose additional options that increase the availability of the service, such as:

- SDH to Premise
- UNI Protection at the Service Provider UNI

## TECHNOLOGY OVERVIEW

The Ethernet frames are encapsulated in an SDH Virtual Container. They are concatenated to give the required bandwidth. This service is carried over the VectorFibre SDH network, which is a 1+1 protected network and available at all times with separate physical paths. This network also features a sub-50 milli-second self healing core network, with automatic fault detection and re-routing giving you protection from any core network issues. The performance characteristics are higher than an Ethernet network where there is switching involved.



## SERVICE SPECIFICATIONS

Service Attributes	
Bandwidth Profiles (Mbit/s)	2, 4, 6, 8, 10, 50, 100, 150, 300, 450, 600, 1000
Ethernet Frame Structure	IEEE 802.3, 802.IQ, 802.1AD
Ethernet Frame Size (DA to FCS, 1 Octet = 8 bits = 1 Byte)	9000 Octets (1000baseLX) 1536 Octets (100baseTX)
Transport Technology	GFP framing of Ethernet on Virtually Concatenated SDH
VLAN Transparency	Transparent to VLANs (IEEE 802.1Q) Transparent to QinQ (IEEE 802.1AD)
Link Pass Through (Alarm Propagation)	Yes for 1000baseLX only
Mode of Operation	Auto Negotiation Enabled
Interface Types - Ethernet	100/1000Base - T RJ 45
	1000Base - LX/ZX

## SERVICE PERFORMANCE

Service Attributes	
Availability	99.9%
Frame delay	Very Low <sup>1</sup>
Frame jitter	Near zero
Frame loss	Zero for in-contract traffic

<sup>1</sup> Propagation delay (one-way) within Auckland is approximately less than 0.2ms

Make sure your business gets the full benefit of VectorFibre Ethernet as soon as possible.  
Call Vector Communications on 0800 826 436 or email [contactus@vector.co.nz](mailto:contactus@vector.co.nz) today.