

network tasman fibre

Technical Overview Ethernet CA Service

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1. Abstract

This document specifies Network Tasman Fibre Ethernet CA service.

2. Introduction

Network Tasman Fibre's Ethernet CA service is a premium layer two Ethernet service with high bandwidth low latency options. It is available to Service Providers wishing to connect to their customers within approved buildings on the Network Tasman Fibre network.

It is designed primarily for commercial customers with high bandwidth requirements.

3. Service Provider Requirements

The following requirements need to be met by the Service Provider at their required customer location for delivery of the Ethernet CA service.

3.1. Service Termination Point

The Service Provider is required to provide an appropriate location for the delivery of the Network Tasman Ethernet CA service. This should be free of any pollutants (dirt, dust etc.) and secure from general public access.

3.2. Physical Access

The Service Provider must ensure that Network Tasman Fibre staff or approved contractors are provided with physical access to the service termination point on request and without unnecessary delay.

3.3. Power Requirements

The Network Tasman Fibre Ethernet CA service is delivered via an electrically powered Network Termination Unit (NTU) at the customer premise. It is the Service Provider's responsibility to ensure that a single phase 230V power source is available at the required location of the circuit termination.

3.4. Equipment Required

The Network Tasman Fibre Ethernet CA service is a layer two Ethernet service. The Service Provider will be required to supply equipment (router/switch) for this service to be terminated on to delivery layer three and above services for the circuit.

3.5. Patch Leads

The Network Tasman Fibre Ethernet CA service is delivered via an RJ45 electrical interface. It is the Service Providers responsibility to provide an appropriate patch cable to connect this interface to their network equipment.

4. Service Technical Specifications

4.1. Service Bandwidth Options

The Network Tasman Fibre Ethernet CA service is available at the following symmetrical burst speeds 50Mbps, 100Mbps, 200Mbps, 1Gbps.

4.2. Committed Information Rates

The Committed Information Rate (CIR) of all Network Tasman Fibre Ethernet CA services are 100% of the bandwidth burst option purchased e.g. a 50Mbps connection has a CIR of 50Mbps.

4.3. VLAN Tagging

Packets delivered at the termination point of a Network Tasman Fibre Ethernet CA service have the 802.1Q VLAN tag (SVID) applied at the Service Provider's SPA removed, however if the Service Provider has provided an additional tag (CVID) this will be passed through to the Service Provider's equipment on the customer's site.

4.4. Frame Type

The default EtherType supported on the Network Tasman Fibre network is 0x8100. On request and negotiation other frame types will be considered.

4.5. Frame Size

A maximum frame size of 9100 bytes will be supported.

4.6. Class of Service

To assist in the delivery of latency sensitive traffic such as Voice over Internet Protocol (VoIP) the Network Tasman Fibre network allows customers and Service Providers to mark packets as either high priority or low priority.

Egress packets from a Network Tasman Fibre Ethernet CA service with an 802.1P tag of 5 will be treated as high priority traffic. All other tags (0,1,2,3,4,6,7) or untagged packets will be treated as low priority.

PCP Tag	Priority
0	Low
1	Low
2	Low
3	Low
4	Low
5	High
6	Low
7	Low

It is the Service Provider's responsibility to ensure that the correct tags are assigned to appropriate packets

5. Specifications Summary Table

The following table summarises the technical specifications for a Network Tasman Fibre Ethernet CA service

Network Interface	RJ45
Standard Circuit Length	≤10km from NTF Central Office (CO). NTF reserves the right to review pricing if this distance is exceeded.
Bandwidth Options	50Mbps 100Mbps 200Mbps 1Gbps
Committed Information Rate	100% of bandwidth option purchased.
EtherType Default	0x8100
Maximum Frame Size	9100 Bytes

6. Ethernet CA+ Service

Should a Service Provider wish to provide multiple services to a customer via separate ports on the Network Tasman Fibre NTU this is available via the Ethernet CA+ service.

The Service Provider must have already purchased one Ethernet CA service to the customer. Specifications of the Ethernet CA+ service are exactly the same, however the bandwidth options for the Ethernet CA+ service are 5Mbps, 10Mbps and 20Mbps.

7. Service Level Agreement

Target Availability (24x7)	99.95%
Proactively Monitored	Yes
Service Desk Availability to Report Faults	24 x 7
Standard Hours of Restoration	8am to 5pm Monday to Friday excluding public and regional holidays.
Time to Respond	Less than 60 minutes
Target Restoration Times	
-Ethernet Faults	Default Service Level ≤ 12 hours Enhanced Service Level ≤ 8 hours
-Fibre Infrastructure Faults	Default Service Level ≤ 48 hours Enhanced Service Level ≤ 24 hours