



Technical Overview
Ethernet RA Service

52 Main Road, Hope 7020
PO Box 3005
Richmond7050
Nelson, New Zealand
Fax +64 3 989 3631
Email: info@networktasman.co.nz
Website: www.networktasman.co.nz

Notice

All information contained herein is proprietary to Network Tasman Fibre and no portion may be reproduced, stored in a retrieval system, transmitted in any form by any means, without the prior written approval of Network Tasman Fibre. This document will be held in strict confidence by the recipient and will not be used, in whole or in part, for any other purpose other than the purpose for which it is provided without the prior written consent of Network Tasman Fibre. In no event shall Network Tasman Fibre be liable to anyone for any damages arising out of the use of this document.

© Network Tasman Fibre 2017

Table of Contents

1. Abstract	4
2. Introduction	4
3. Service Provider Requirements	4
3.1. Service Termination Point	4
3.2. Power Requirements	4
3.3. Equipment Required	4
3.4. Patch Leads	4
4. Service Technical Specifications	4
4.1. Service Bandwidth Options	4
4.2. Committed Information Rates	5
4.3. VLAN Tagging	5
4.4. Frame Type	5
4.5. Frame Size	5
4.6. Class of Service	5
5. Specifications Summary Table	5
6. Service Level Agreement	6

1. Abstract

This document specifies Network Tasman Fibre Ethernet RA service.

2. Introduction

Network Tasman Fibre's Ethernet RA service is an asymmetrical bandwidth layer two Ethernet service with a low Committed Information Rate (CIR). It is available only to residential customers within selected subdivisions.

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 RA service. This should be free of any pollutants (dirt, dust etc.) and secure from general public access.

3.2. Power Requirements

The Network Tasman Fibre Ethernet RA 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.

3.3. Equipment Required

The Network Tasman Fibre Ethernet RA 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.

3.4. Patch Leads

The Network Tasman Fibre Ethernet RA 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 RA service is available at the following asymmetrical (down/up) burst speeds 100/50Mbps and 200/100Mbps.

4.2. Committed Information Rates

The Committed Information Rate of all Ethernet RA services is set to 2.5/2.5Mbps. No upgrade options are available.

4.3. VLAN Tagging

Packets delivered at the termination point of a Network Tasman Fibre Ethernet RA 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 2100 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 RA 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 RA 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 (down/up)	100/50Mbps 200/100Mbps
Committed Information Rate (down/up)	2.5/2.5Mbps
EtherType Default	0x8100
Maximum Frame Size	2100 Bytes

6. 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