

Service Description

This document provides a service description of the Digital Distribution Australia Pty Ltd (DDA) wholesale Ethernet E-LINE service suitable for local, metropolitan and wide area networks.

The DDA Ethernet E-LINE service provides service providers with a cost effective and scalable carriage service using the industry standard Ethernet interface. Capacity is available from 2Mbps to 1Gbps.

The Ethernet E-LINE service is carried across the DDA IP MPLS national network.

Class of Service

There are 3 service classes available:

- Carrier Data Service
- Business Data Service
- Consumer Data Service

The Carrier Data Service is an “expedited” class of service across the DDA MPLS network and it has strict end to end performance characteristics for latency, jitter and packet loss. It is a leased line replacement service suitable for the carriage of real time and interactive data such as VoIP and video.

The Business Data Service is a “priority” class of service with strict end to end performance characteristics for latency and packet loss, making it suitable for the carriage of bulk data.

The Consumer Data Service is a “standard”, best efforts class of service suitable for internet access.

Configuration

DDA Ethernet E-LINE services are available as either point to point or point to multipoint services with either one service per port (EPL) or multiple services per port each with VLAN ID (EVPL).

Service Specification

Service Parameter	E-LINE Data		
	Carrier E-LINE Data	Business E-LINE Data	Consumer E-LINE Data
Configuration	Point to Point, Point to Multipoint (Hub & Spoke)		
MEF Standards	E-LINE, EPL, EVPL		
Transport Technology	MPLS VPWS		
Bandwidth (Mbps) [1]	2-20Mbps in 2Mbps increments, 20-100Mbps in 10Mbps increments, 100Mbps -1000Mbps in 50Mbps increments		
Ethernet Frame Size (MTU)	Fast Ethernet: 1536 Bytes Gigabit Ethernet: 4960 Bytes		
VLAN Transparency	EPL: Transparent to VLANs, QinQ [2] EVPL: Transparent to VLANs [3]		
Protocol Transparency	Transparent to all layer 3 protocol High degree of L2CP transparency		
QoS Transparency	Transparent to customer QoS (802.1p/DSCP)		
Availability	99.95%	99.95%	99.86%
Frame Loss Ratio [4]	<0.01%	<0.01%	N/A
Frame Delay [4] [5]	Based on distance of path	Based on distance of path	N/A
Inter-Frame Delay Variation [4] [5]	<5ms	N/A	N/A
Interface Protection (Optional)	LACP IEEE802.3ad / Static LAG		
Interface Configuration	Fast Ethernet: Hard code 100/Full Gigabit Ethernet: Hard code 1000 non-negotiate		
Interface Standards	Fast Ethernet: 100BASE-T Gigabit Ethernet: 1000BASE-LX, 1000BASE-SX, 1000BASE-T		
Physical Connectors	Fast Ethernet: RJ45 Gigabit Ethernet: LC, SC, RJ45		
Cabling	Fast Ethernet: Cat5e Gigabit Ethernet: SM, MM fibre, Cat5e		
Commissioning standards	RFC2544	Ranging from Verified Connectivity to RFC2544	Ranging from Verified Connectivity to RFC2544

Note

1. Guaranteed bandwidth includes data and Ethernet overheads. Overheads include both Ethernet physical layer and MAC layer.
2. Fast Ethernet Interface doesn't have QinQ transparency
3. Customer equipment at Hub site needs to support VLAN Stacking if VLAN transparency is required
4. Frame loss ratio, frame delay, inter-frame delay variation are average value measured over 48 hours. Measurement burst traffic is sent every 5 mins.
5. Frame delay and inter-frame delay variation are two-way measurement.

Service Level Agreement

- SLA performance monitoring is based on ITU-T Y.1731
- Annual availability is the inverse of unavailability. Unavailability which is the sum of all outages due to either equipment failure, circuits breaks or packet loss measured over the year.