

Product Description: Metropolitan Area Network (MAN) Connections

MAN connections are connections to Smartlinx3's open-access Layer 2 Ethernet Metropolitan Area Network.

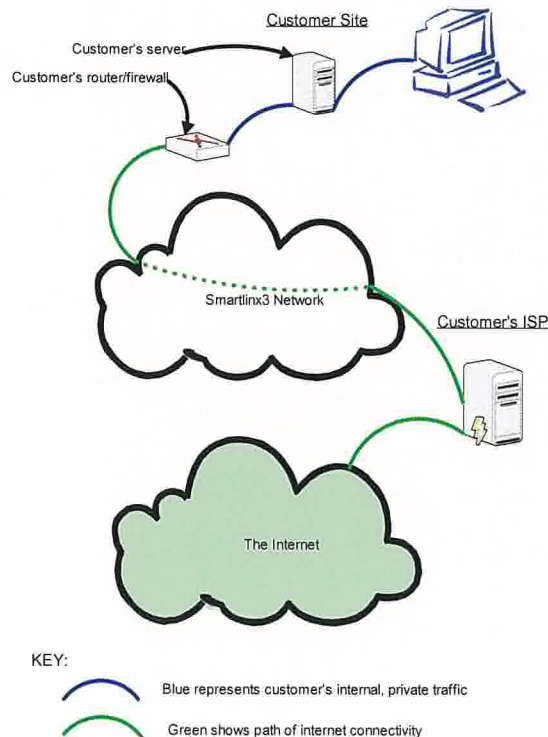
All **MAN** connections are **symmetrical**. You can send data at the same speed that you receive it.

All **MAN** connections are **fast**; nothing is slower than 2 Mbps and standard connection speeds can be up to 1 Gbps.

There are **no caps on data volume**. You can send and receive as much data as you wish across the network.

For **Internet access** you will need a contract with an ISP. Your ISP will allocate your public IP address(es). A list of service providers is available from www.smartlinx3.co.nz.

The following diagram illustrates a typical **MAN** installation:



MAN connections are achieved using 21st century technology. We do not use the copper local loop. Smartlinx3's network interface to you is an RJ45 port into which you plug your router.

Fibre/Switch Connections:

If you are close to our fibre, or you are in a building with a network switch, we'll connect you with a 'Smart' connection.

'Smart' products are direct connections to a network switch, using Fibre, Cat6 or Cat5 cable as appropriate. They are available in a limited, but growing, number of locations. The number after the name is the switch port speed. All 'Smart' products are full duplex. 'Smart 5' and 'Smart 20' are not yet available in all network switch locations. 'Smart 10' customers will automatically be upgraded to 'Smart 20' as that option becomes available.

High Speed Wireless:

If you are not close to the fibre or one of our switches then we'll connect you with a high-capacity radio link:

- 'Multi' connections at 2, 4 or 8 Mbps.
- 'Sole' connections at from 10 to around 40 Mbps.
- 'DM' connections for even faster connectivity.

'DM' products are frequency division duplex point to point high speed digital microwave radio links to a network switch. 'Sole' products are time division duplex point to point wireless links to a network switch. The number after the name is the manufacturer's stated user data throughput. So, for example, 'Sole 40' is a wireless link rated at 40 Mbps and connecting the customer to a network switch, and only that user is accessing that link and that port on the switch.

'Multi' products are time division duplex point to multi-point wireless links to a 10 Mbps full duplex port on a network switch. The number after the name is the manufacturer's stated user data throughput. So, for example, 'Multi 4' is a wireless link set to deliver 4 Mbps between the user and the switch, but that user is sharing access to a 10 Mbps port on the switch. This is dynamically managed to ensure the fastest possible data rate, dependent upon total demand. Note however that, whilst slower connections will typically achieve the stated rate, a 'Multi 10' connection will typically achieve 8 Mbps. On our rate card the new 'Multi 8' is the same as the old 'Multi 10'.

Connections at non-standard data rates may be negotiated.