# COLT LANLink brings LAN-to-LAN connectivity using Ethernet

**COLT LANLink is a set of Ethernet-based services designed to connect together local area networks (LANs). It provides cost-effective and efficient networking for those who prefer to build and manage their own networks. Ethernet is the de-facto standard within the LAN, and LANLink extends this well-understood and trusted standard into metropolitan and wide area networks (MANs and WANs). LANLink offers point-to-point and point-to-multipoint services across Europe. You benefit from having one service provider for all your network needs and just one local relationship for pan-European service delivery. COLT has successfully delivered Ethernet services beyond the LAN since 1996.**

► Makes high-speed LAN interconnection more affordable

► Bridges the bandwidth bottleneck between LANs to ensure that your business-critical data gets through securely and without delay

► Reduces customer premises equipment (CPE) costs

► Simplifies operations, with one protocol throughout your network

► Makes the most of your existing LAN management tools and skills

► Offers 15 bandwidth choices between 2 and 100 megabits per second (Mbps) – granularity that enables you to deploy the amount of bandwidth you need, minimising wasted capacity and cost

► Reduces the cost and inconvenience of upgrades, minimising downtime

► Uses the same equipment for any speed from 2Mbps to 100Mbps

► Provides a future-proof solution, with bandwidths up to one gigabit per second (Gbps)

► Forms an ideal element of business continuity and storage solutions because of its cost-effectiveness and high bandwidths
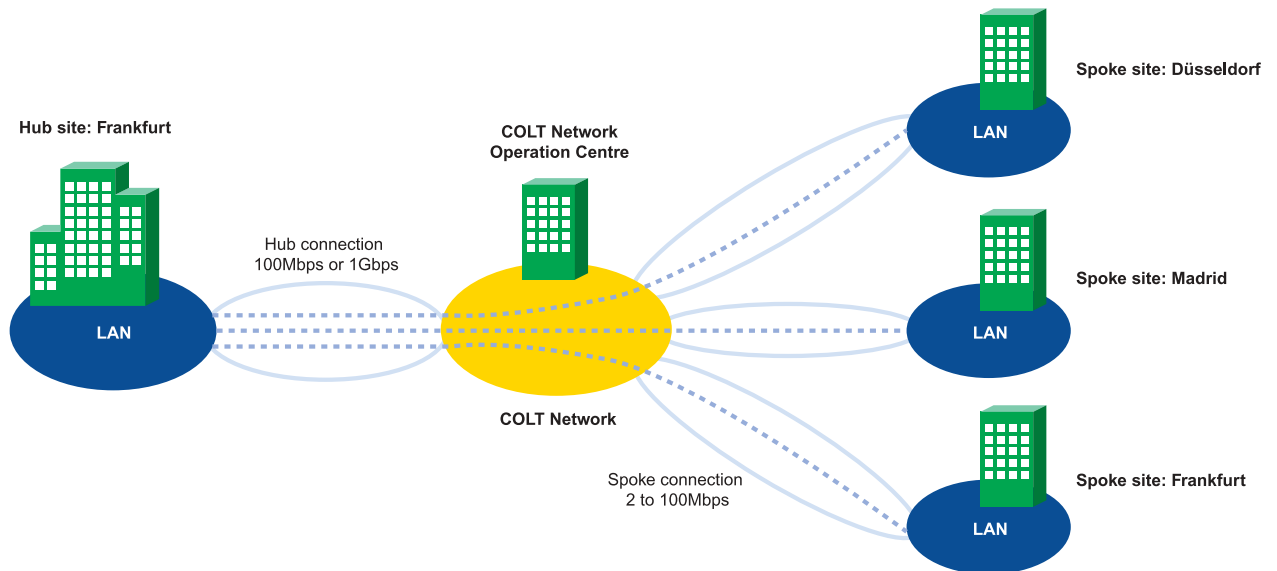
**Flexible service options**

The COLT LANLink portfolio offers four options to suit all your requirements. There are three point-to-point services:

► LANLink Metro, connecting two sites within a city

► LANLink National, connecting two sites in different cities within a country

► LANLink International, connecting two sites in different countries

The fourth option, LANLink Hub and Spoke, offers a point-to-multipoint service that enables the aggregation of multiple Ethernet-delivered spokes onto a single Ethernet interface at a central hub site.

**Example of a LANLink Hub and Spoke connection**



Hub site: Frankfurt

COLT Network Operation Centre

Spoke site: Düsseldorf

LAN

Hub connection 100Mbps or 1Gbps

LAN

LAN

Spoke site: Madrid

LAN

COLT Network

Spoke connection 2 to 100Mbps

Spoke site: Frankfurt

LAN

### Cost-effective

You can use your existing LAN equipment to send Ethernet over the wide area, with the potential for substantial hardware savings. Ethernet equipment is cheaper than traditional WAN equipment – its very widespread use has driven down costs.

The large choice of bandwidths across the whole portfolio means that you can pay for what you need where you need it, and extend your network in line with business growth in affordable steps.

You can also use LANLink to upgrade the bandwidth to a site without disposing of existing infrastructure. With LANLink, provided your equipment has basic Ethernet ports, your equipment costs can remain unchanged from 2Mbps up to 100Mbps.

Ethernet end-to-end means your network operations are simpler. You can save on expensive maintenance and support agreements: most organisations already have staff who are experienced with Ethernet, so you can make the most of their existing knowledge of this well-established protocol.

### Consolidation and convergence

Ethernet is ideal for carrying IP traffic in the wide area, just as it does in the local area. This brings the potential to run your voice, data and video over a single network and single protocol – instead of having disparate networks and servers running duplicate applications.
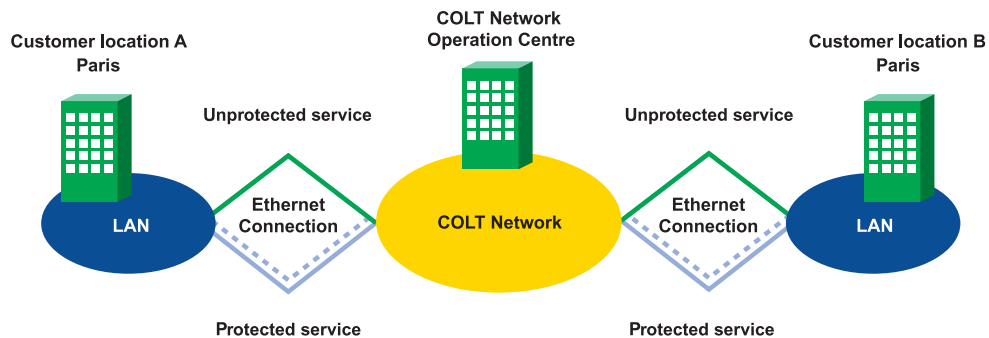
Many organisations are also considering consolidating their data operations onto central hub sites. LANLink Hub and Spoke makes this straightforward and brings savings in capital expenditure, space and operational efficiency.

### Reliable and secure

LANLink services provide dedicated and secure bandwidth. Your traffic is carried separately from other traffic.

Connections provided over SDH are inherently resilient because SDH is a self-healing technology. COLT's protected services over dedicated fibre provide two separate paths, with hot standby protection and cutover in under 50ms.

# LANLink

**Example of a LANLink Metro connection**



**Business continuity**

Organisations now rely more than ever on their data systems for routine operations, and at the same time new laws and regulations (such as Sarbanes-Oxley, data protection and Basel II) require unprecedented data availability. The pressure on enterprises to be able to continue business no matter what the circumstances is greater than ever. COLT LANLink can provide the connectivity to enable your business to operate smoothly. Its high reliability makes it ideal for your primary networks. It is also a good choice for connections to backup data centres and hubs because of its high speeds and cost-effectiveness.
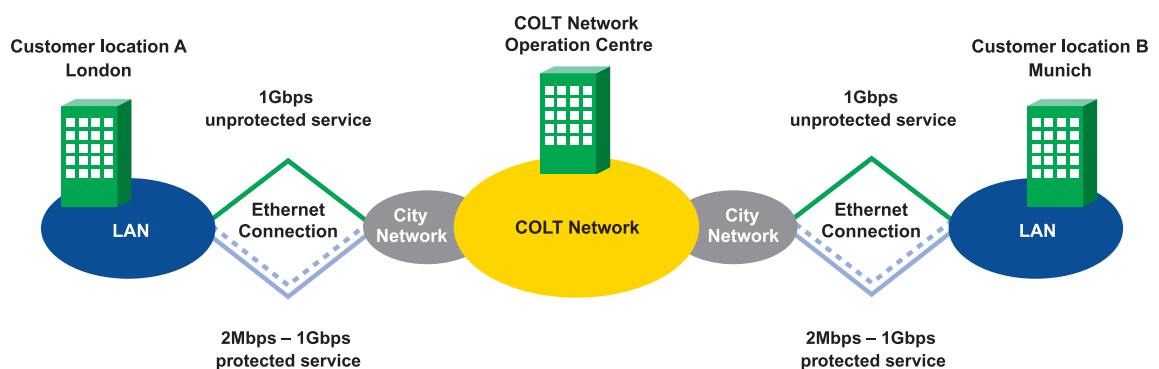
**CPE Solutions**

LANLink is designed for organisations that want to manage their own CPE. However, COLT can provide and manage equipment through COLT CPE Solutions.

**Management and experience**

COLT LANLink services are network managed services with support including remote monitoring and maintenance. COLT has been selling Ethernet services since 1996 and is able to support your requirements across 32 cities in Europe.

**Example of a LANLink International connection**

## Technical Specifications

| Bandwidth Options[1] | Protected/ Unprotected[2] | Delivery over dedicated fibre or SDH | Interface Type | Connectors |
|---|---|---|---|---|
| 2Mbps | Protected | SDH | 10/100Base-T | RJ45[3] |
| 4Mbps | Protected | SDH | 10/100Base-T | RJ45[3] |
| 6Mbps | Protected | SDH | 10/100Base-T | RJ45[3] |
| 8Mbps | Protected | SDH | 10/100Base-T | RJ45[3] |
| 10Mbps | Protected | SDH[5] | 10/100Base-T | RJ45[3] |
| 15Mbps | Protected | SDH | 100Base-T | RJ45[3] |
| 20Mbps | Protected | SDH | 100Base-T | RJ45[3] |
| 25Mbps | Protected | SDH | 100Base-T | RJ45[3] |
| 30Mbps | Protected | SDH | 100Base-T | RJ45[3] |
| 40Mbps | Protected | SDH | 100Base-T | RJ45[3] |
| 50Mbps | Protected | SDH | 100Base-T | RJ45[3] |
| 60Mbps | Protected | SDH | 100Base-T | RJ45[3] |
| 75Mbps | Protected | SDH | 100Base-T | RJ45[3] |
| 90Mbps | Protected | SDH | 100Base-T | RJ45[3] |
| 100Mbps | Protected | SDH[6] | 100Base-T | RJ45[3] |
| 1Gbps[4] | Protected | Fibre | 1000BaseLX Single mode 1310nm; 1000BaseSX Multi-mode 850nm | SC, ST, FC/PC |
| 1Gbps[4] | Unprotected | Fibre | 1000BaseLX Single mode 1310nm; 1000BaseSX Multi-mode 850nm | SC, ST, FC/PC |

**Additional bandwidth options for LANLink Metro:**

| | | | | |
|---|---|---|---|---|
| 10Mbps | Unprotected | Fibre | 10/100Base-T | RJ45[3] |
| 100Mbps | Unprotected | Fibre | 100Base-T | RJ45[3] |
| 155Mbps | Protected | Fibre | 1000BaseLX Single mode 1310nm | SC, ST, FC/PC |
| 155Mbps | Unprotected | Fibre | 1000BaseLX Single mode 1310nm | SC, ST, FC/PC |
| 622Mbps | Protected | Fibre | 1000BaseLX Single mode 1310nm | SC, ST, FC/PC |
| 622Mbps | Unprotected | Fibre | 1000BaseLX Single mode 1310nm | SC, ST, FC/PC |

1 Please check local availability with your COLT contact
2 All Hub and Spoke connections, at all speeds, are protected
3 Interfaces: In accordance with the standard IEEE 802.3, the physical interface is a female RJ45 connector (1/2 RX, 3/6 TX)
4 Not available for Spoke connections
5 Protected 10Mbps services could be delivered over dedicated fibre
6 Protected 100Mbps services could be delivered over dedicated fibre

**Contact COLT**

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