



Internet Exchanges

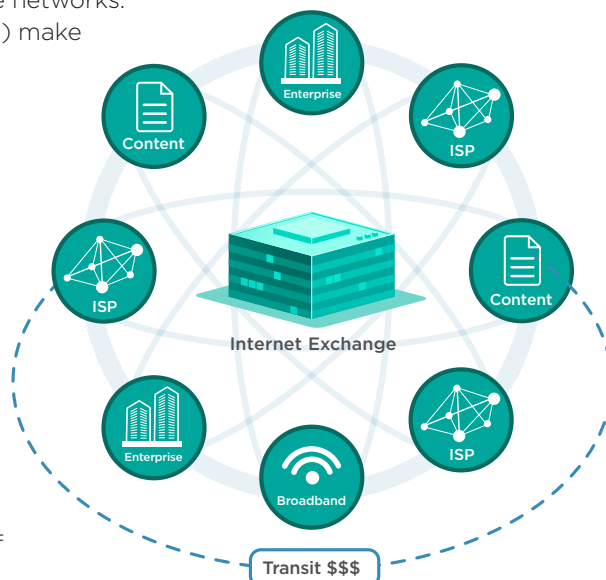
in Colt DCS Data Centres

Colt DCS carrier-neutral data centres hosts many internet exchanges at sites in Europe and Asia, providing ideal options for network owners to peer, meaning exchange traffic, with others making the internet faster, more efficient and cost-effective for exchange participants.

What is an Internet Exchange?

An internet exchange is networking infrastructure where carriers, internet service providers and content providers exchange traffic. The internet is a network of networks, and Internet exchanges are a vital element helping traffic move between those networks. Internet exchange providers (IXPs) make this traffic exchange a lot easier by providing a physical point where participants can exchange their traffic, or peer through a single interface, rather than individually with every single network. Simply put, IXPs provide network interconnection services.

IXPs help minimize the part of internet traffic that without them had to go through an upstream provider and hence provide faster access to local destinations and reduce the cost of buying third-party transit services.





The Benefits of Internet Exchanges

✓ Improved latency

IX peering provides a path at the lowest possible latency to a participant's web site or application, which can greatly enhance the end-user experience.

✓ Transit cost savings and simplicity

By eliminating the need to put all traffic through expensive transit routes. A single connection to an IX platform can help organisations reach hundreds of networks.

✓ Efficient local access

IXs provide the shortest route to IP networks in the metro region. More bandwidth becomes available for local users because of the lower local capacity costs. Local links are often up to 10 times faster because of the reduced traffic latency, which means fewer hops to get to its end destination.

✓ Access more ISPs

Improved choice of internet providers to send upstream traffic to the rest of the Internet are offered.

✓ Increased resilience

Connecting to an internet exchange improves the resiliency of your network by providing access to multiple network providers.

✓ Additional security

An internet exchange connection can provide DDOS (Distributed Denial of Services) mitigation.

What Type of Organisation Connects to an IX?

Data services providers that want to exchange traffic with other networks typically connect to internet exchanges. Typical IX users are internet service providers, content providers, network service integrators, telecom carriers, enterprises using cloud services, enterprises with large web presences as they exchange traffic with other networks.

Service Options Delivered by Most Internet Exchanges

Colt DCS hosts various regional IXs at its sites. The IXs offer several different products including:

- ✓ **Public Peering** Public VLAN for access to all peering participants.
- ✓ **Support for industry standard IEEE 802.1Q** Trunking encapsulation.
- ✓ **Private internet Private VLAN (required)** Unicast peering VLAN enabled) for direct bilateral peering or communities of interest.
- ✓ **Support for remote-triggered blackholing (RTBH)** To mitigate distributed denial-of-service (DDoS) attacks.
- ✓ **Access to an IX portal**
- ✓ **24x7 Network Operations Centre for issue resolution at every site**
- ✓ **>99.99999% uptime guarantee for individual ports**
- ✓ **Best practice information on peering and interconnection**









For individual offerings from each internet exchange, please visit their websites.





Internet Exchange Availability in Colt DCS Data Centres

World-leading internet exchanges are hosted in Colt DCS data centres.

Internet Exchange	Colt DC Location	Public Peering			Private Interconnect	
		1G	10G	100G	1G	10G
BBIX 	Tokyo Shiohama	✓	✓	✓	✓	✓
BCIX 	Berlin	✓	✓	✓	✓	✓
DECIX 	Frankfurt	✓	✓	✓	✓	✓
Espanix 	Madrid	✓	✓	x	x	x
JPIX 	Tokyo Shiohama	✓	✓	✓	✓	✓
JPNAP 	Tokyo Shiohama	✓	✓	✓	✓	✓
LINX 	London West	✓	✓	✓	✓	✓
NLIX 	Brussels	✓	✓	✓	✓	✓

What if an IX is Not Available in a Desired Location?

Colt DCS can provide high capacity, low cost 1 Gbps, 10 Gbps and 100 Gbps connectivity to other data centres in the same metro, which will enable remote connectivity to any local internet exchange not located within our data centre at cost-effective rates.



About Colt DCS

Colt Data Centre Services is a leading carrier-neutral data centre operator. We are trusted by our globally recognised customers to provide unparalleled service and security. Our operational excellence is verified by achieving one of the highest possible scores in the Uptime Institute's Management and Operations award. Colt DCS has designed, built and operated large-scale data centres and provided data centre colocation services for more than 20 years at our 24 carrier-neutral data centres across Europe and Asia.



24 DATA CENTRES • 24 MARKETS • 100% CARRIER NEUTRAL

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Colt Brussels Data Centre

Denmark

Colt Copenhagen Data Centre

France

Colt Paris North Data Centre

Colt Paris South West Data Centre

Germany

Colt Berlin Data Centre

Colt Frankfurt City Data Centre

Colt Hamburg Data Centre

Hong Kong

Colt Hong Kong Data Centre

Italy

Colt Milan Data Centre

Japan

Colt Osaka Data Centre

Colt Tokyo Shiohama Data Centre

Colt Tokyo Inzai Data Centre

Colt Tokyo Inzai Data Centre Two

Colt Tokyo Otemachi Data Centre

Netherlands

Colt Amsterdam South East Data Centre

Colt Rotterdam Data Centre

Singapore

Colt Singapore Data Centre

South Korea

Colt Busan Data Centre

Spain

Colt Barcelona Data Centre

Colt Madrid Data Centre

Switzerland

Colt Zurich Data Centre

United Kingdom

Colt London City Data Centre

Colt London West Data Centre

Colt London North Data Centre



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Colt Data Centre Services



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Colt Data Centre Services



In today's world, great businesses must be secure, resilient, scalable and above all - connected.

At Colt Data Centre Services this is our business. Colt Data Centre Services offers flexible and affordable colocation and IT infrastructure solutions. Our connectivity and colocation solutions allow our customers freedom to plan effectively for the growth of their business, knowing that their data centre strategy is future-proof.

We operate 24 state-of-the-art data centres across Europe and Asia Pacific, offering 24/7 security and local language support. We are connected to a further 530+ third party data centres across our network and are able to offer private links into the major public cloud providers.

As the only data centre provider in the world to secure the highest M&O certification by the Uptime Institute, our operational standards are recognised as industry-leading.

Colt Data Centre Services has over 20 years' experience in designing, building and operating energy-efficient, reliable data centres - hosting significant financial, media, corporate and cloud wholesale providers across the world.

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