

IP CONNECTIVITY PORTFOLIO



Our IP-Networks

We have built a Tier 1 IP-Network to help our customers with the best IP access and throughput available in the market. In doing so, we have deployed an IP-Network based on DWDM wave length throughout Europe. Our IP-Network connects directly to peer networks that have direct access to 97% of all European internet users. Our customers are corporate businesses such as hospitals, financial institutions, ISPs, Broadcasters and VoIP providers. We continually invest in our IP-Network and resources to better serve our 27 million customers with fast, consistent and reliable IP services.

Our IP-Network is spread across 80 tele-houses in 13 countries and is connected to all major exchanges in these countries. Our network reach expands beyond Western Europe, and reaches as far as Central and Eastern Europe and the US. Being present at so many exchanges in combination with having a considerable amount of on-net customers, this is a unique quality proposition for carriers and ISP's.

IP Transit Service

The IP Transit service offers uncontended access to the global internet on our own network running many hundreds of gigabits per second. The small amount of traffic to remote destinations that is not

reached through peering is off-loaded to third parties. Our IP Transit service provides up to 100 Gbit/s ports and we tier these ports to customer requirements. The preferred routing is done by BGP4 but we also provide customers with the opportunity to use our IP address space. Furthermore, we can manage many operational tasks for smaller operators, enabling them to concentrate on their customers. Our network is supported by a 24/7 NOC with highly trained engineers. Our IP Transit service is designed to handle realtime applications for video and voice distribution but also business applications that require real-time connectivity and delivers the bandwidth-intensive content such as gaming, e-commerce and music applications.

On-net Direct Internet Access

As an integrated player, present in residential and business markets, Liberty Global reaches 27 million customers. Network latency is crucial for the online gaming industry. For your customers, it means the difference between winning and losing a tournament. For you, it means the difference between retaining and losing a customer. Therefore, with our on-net Direct Internet Access we offer lowest latency towards our customers.

FEATURES

- Ethernet services with 10 Mbit/s, 100 Mbit/s, 1 Gbit/s and 100 Gbit/s speeds (on request)
- Ethernet services for point to point services
- A wide range of access options on fiber
- Standards of speed of delivery, network availability and fault restoration that are best in class
- Easily upgradeable range of services
- Proactive 24/7 management and support
- WDM services 1 GB, 10GB, 100 GB, FC, ESCON

STANDARD PRICES FOR FTTB LOCATIONS

UPC Wholesale has been constructing fibre optic connections (Fiber to the Building) under its own initiative for more than ten years. The Connected Building List contains addresses of all FTTB locations. It is available to wholesale customers free of charge. Standardised prices for Ethernet and WDM services apply at locations that UPC Wholesale has linked to a fibre optic network. Further products are offered separately.