

# 100G CAPACITY WITHOUT COMPLEXITY

O2 helped make the Czech Republic a telecommunications pacesetter in Central and Eastern Europe. Now they face the challenge of keeping up with that pace – and finding a simpler way to do it.

---

Building networks, “not for what is, but for what will be”, means solutions must be scalable to a demand curve that just keeps going up.

## FROM A SNOWBALL TO AN AVALANCHE

Early deregulation and infrastructure investment made the Czech Republic a telecommunications gateway for Central and Eastern Europe. In recent years, the combination of high-quality connectivity and low business costs has led to a rapid increase in the number of tech startups, e-commerce companies and software developers based there.

O2, the Czech Republic’s largest integrated telecommunications provider, has played a central role in providing this connectivity. Now, their challenge was to not only meet the growing connectivity demands of these companies, but also the explosive demands driven by 4G/LTE and video streaming.

But it was not just a matter of increasing capacity. O2 also wanted to increase network

diversity. This was both for the sake of network reliability, but also to encourage good old-fashioned competition between providers.

## EMBRACING THE SIMPLE LIFE

Whatever solution O2 selected, it needed to reduce complexity. Building networks, “not for what is, but for what will be”, means solutions must be scalable to a demand curve that just keeps going up. They needed a solution that would make life more simple.

To meet rapidly growing demand from broadband and mobile customers, O2 had recently upgraded its core technology with 100G capacity. So it also made sense to extend this single-port-simplicity to their international connectivity.

As a starting point, they looked at carriers who could provide 100G



#### Who is O2?

O2 connects more than 8 million fixed and mobile subscribers in the Czech Republic. Their data center facilities cover more than 7,300 square meters and are some of the only TIER III certified commercial centers in Europe. Offering a full range of hosting, cloud and managed services – as well as IPTV – they are considered to be a market leader in fully converged services in Europe.

---

on their own backbones. Providers who relied heavily on leased networks were not considered for two reasons. Firstly, the economics of needing to put margin on margin don't scale well in a market facing constant downward cost pressure. Secondly, real reliability requires real network redundancy – if everyone leases the same stretch of fiber, they all go down together.

### 100G BEFORE LUNCH

Following the bidding process, Telia Carrier emerged as the clear choice. As the first backbone provider to offer 100G-enabled networks in both Europe and North America, Telia Carrier already had proven performance. Their global backbone also meant they could offer one-hop connectivity to key destinations throughout Europe and around the world.

Telia Carrier were also already well established in the Czech Republic, with existing connectivity to O2's network via 2 x 10G ports in their Prague colocation center. Upgrading from 10G to 100G would be a simple matter of putting contingency plans in place and making the switch.

The changeover took less than a day and was achieved without service interruption.

### UP, UP AND AWAY

O2 are now where they needed to be. They have achieved their multiple provider strategy and have peering in place with over 0.5Tbit/s of capacity managed primarily on 100G ports. This has greatly simplified network and infrastructure management and traffic engineering. As soon as traffic exceeds 50G, O2 switches over from 5 x 10G ports to a 100G port. This opens up additional bandwidth for customers and provides the scalability for demand to continue to increase. Being 100G enabled both nationally and internationally also simplifies their routing policy. Traffic is split between their providers according to the shortest path.

Multiple providers also provide the network diversity and cost competitiveness that O2 desired. Now they can go back to what matters: meeting the demands that create the demands they need to meet – simple really.

Telia Carrier owns and operates one of the world's most extensive fiber backbones. Our mission is to provide exceptional network infrastructure and services – empowering individuals, businesses and societies to execute their most critical activities. By working close to our customers we make big ideas happen at the speed of fiber.

We are a part of Telia Company, Europe's 5th largest operator.

[Discover more at teliacarrier.com](https://teliacarrier.com)

