




CAIRNGORM MOUNTAIN

Cairngorm Mountain Ltd, based in Badenoch near Aviemore, operates the facilities on Cairngorm Mountain. Before 2001, it was known as the Cairngorm Chairlift Company Ltd and prior to that as Cairngorm Sports Development Ltd. Cairngorm Mountain Ltd is a wholly owned subsidiary of the Cairngorm Mountain Trust.

Cairngorm is the UK's 5th highest mountain and takes its name from the mountain range in which it is located. It is the largest area of high ground in the United Kingdom and is recognised internationally for the quality of its natural landscape, rare plants and wildlife and much of the land is protected under European environmental law.

The Cairngorm's is also one of the most popular mountain recreation areas in Scotland and attracting skiers, snowboarders, ski mountaineers, climbers, walkers, bird watchers, study groups, scientists and sight seeing visitors. The Cairngorm's will be Scotland's second National Park and the ski area is the most popular visitor access point to the mountain range.

Cairngorm Mountain Ltd (CML), like many rural businesses in the UK, suffered from really poor Internet connectivity. Their four BT business broadband circuits were bonded together, but this still only gave them 400/600Kbps down/up at best. When the weather and damp settled in this speed reduced even further. This wasn't good enough for business needs, let alone to provide the tens of thousands of visitors, who increasingly demand Internet connectivity and Wi-Fi.

CML took the decision to make their situation better enabling the provision of an on-line, cloud based booking system. This technology requires the staff to be able to access the off-site system quickly to manage the bookings of guests/customers booking for the season while still providing much needed additional bandwidth for normal business activities. They also wanted to offer Wi-Fi for their visitors and to distribute a fast reliable broadband connection to surrounding businesses - capitalising on their elevated position, providing a great point from which to connect all of the surrounding and equally poorly serviced broadband business premises.

Firstly, CML looked at installing a higher speed optical fibre cable to the mountain, but as this would have to come from Aviemore, some 11km (as the crow flies) in the distance, the initial estimates were horrific, with none of the providers of such as service able commit to a final installation cost.

Working in conjunction with the Macdonald Hotel, Aviemore a solution was designed to allow for a higher speed fixed line Ethernet First Mile (EFM) circuit to be installed within the hotel. This provided a 10Mbps circuit that could be further upgraded if necessary, but crucially this technology is not a contended service like broadband, so a full 10Mbps would be delivered at all times.

From the Hotel a Wireless Point to Point (PtP) link was installed providing a connection speed of 130Mbps in ideal conditions.

With our expertise and knowledge we designed the system (using highly directional antennas) to provide a link no matter how atrocious the weather conditions - giving 99.999% uptime with a minimum connection speed of 10Mbps.

To provide some resilience for the customer we retained the original broadband connection and using aggregation devices, we have allowed the system to use the original 400kbps broadband in case the worst should happen. The solution is also backed by a Rapier Systems SLA, which provides an engineer to site within 4 hours, with all spares in order to rectify any issues quickly, providing further peace of mind.



In one of the most rural and harsh environments of the UK, we delivered a High Speed (more than 300 times faster than before), robust and secure wireless link providing reliable Internet connectivity suitable for the needs of CML, which could also allow other local businesses to enjoy higher speeds than currently available. This is a system that meets the needs of the local businesses, grants public access to the Internet and has the ability to grow to meet future needs.

“This increase in access and capacity is a major boost for the Cairngorms, both for visitors and local businesses alike. Rapier has delivered everything on time and in budget and we are delighted with the result.”

Paul Nixon – Customer Services Manager
Cairngorm Mountain Ltd.

About Rapier Systems

Formed in 2003 Rapier has unrivalled expertise in the design, delivery and support of wireless (including WiFi) networks and systems; the company is a value added integrator of best-in-class wireless products.

Whether within or between buildings, upgrading or replacing existing networks, or designing and installing new wireless systems, Rapier's experience in environmental analysis and network design ensures complete coverage and optimal performance.

Rapier works with world leading wireless system vendors, including Ruckus, Alvarion, Airtight, Cambium/Motorola, Ceragon, SAF Technika and several more. The company has reached the highest level of accreditation with each of its partners and understands which vendor and product is best suited for each environment.

Rapier has grown dramatically on the back of a surge in demand for wireless networks, which it has designed and installed in a wide variety of challenging environments from colleges and oil rigs to business parks and theatres.

Rapier maintains Scotland's largest Wireless Network, covering Dundee City, Angus and Perth & Kinross Councils, which comprises around 250 sites.

The company has designed and delivered some of the most innovative wireless solutions in the UK, including the largest metropolitan area wireless network in Scotland and one of the largest county-wide wireless networks in England. Rapier delivered the 1st fully licensed Gigabit wireless link in the UK.

The company's headquarters is located in Fife, Scotland and it has offices in St Neots, Cambridgeshire, England.

Rapier has a UK wide customer base in sectors that include Local Government; Transport, Renewables, Oil and Gas, Retail and Leisure.

For further information please visit www.rapiersystems.com

