

Chairman's AGM Report 2023

CMNet is now ten years old and in December it will be nine years since the first subscribers joined.

CMNet remains the only provider that can deliver Next Generation Broadband speeds to all the premises in the area at a reasonable cost.

CMNet operates on a cost recovery basis with minimum overheads thanks to everyone volunteering to offer their services for free. As the number of subscribers and the volume of data grow CMNet's unit costs drop which means everyone benefits from cheaper broadband.

The number of subscribers has risen from 56 to 63 during the year and there has been a 31% increase in data volumes. The average usage per subscriber, per month is ~ 395 GB for which the tariff is £8.

Total average monthly usage by year:-

2023 - 9.3 TB
2022 - 7.7 TB
2021 - 5.9 TB
2020 - 4.2 TB
2019 - 3.6 TB
2018 - 2.4 TB
2017 - 1.1 TB
2016 - 0.5 TB

The new line at the Shinty club in Lochcarron is now fully operational. Our performance monitoring is being enhanced to provide detailed diagnostics so we can install additional capacity when it is required.

The new AC Gen2 equipment is working well, as are the new 60 GHz dishes. CMNet has invested further in these technologies in the past year. Due to a worldwide shortage of computer chips the bulk of the delivery of new equipment was delayed by eight months, as of 31st August 2023 one item ordered in the previous financial year is still outstanding. We have also invested in a laptop to provide dedicated support to minimise the handover from one director to another.

Other topics:-

Long term support plan

We plan to upgrade most of the access points to AC Gen2 units to be able to utilise the increased throughput of these units.

It remains CMNet's goal to increase the number of people that can support the system. Once the access points have been upgraded we shall restart work to make all the relays on Creag Mhaol fault tolerant by having backup equipment in situ CMNet will then look at implementing automatic failover to recover when a component fails. It is CMNet's intention to automate fault recovery as much as is possible to reduce the need for manual intervention.

With the advent of the new AC Gen2 and 60 GHz equipment it is becoming increasingly laborious to maintain a consistent set of configurations across ~ 20 different hardware platforms and over 200 devices. We have therefore started a program to cross check, rationalise and automate the configurations across all the hardware platforms.

Electricity supply

CMNet negotiated a fixed price for CMNet's electricity last year, when this expired our electricity prices doubled.

Directors:-

There have been no changes in directors this year.

Here is a breakdown by area:-

Whole House Wi-Fi - Several subscribers have taken advantage of this package to ensure that a Wi-Fi signal is available throughout their properties. The mains LAN extenders have mostly worked well but have proved unworkable in a couple of installations.

False RADAR (FR) - CMNet's software that reports when frequencies have been changed has proved key in reducing the frequency of FR events. The link from Creag Mhaol to Achmore Hall was quickly identified as the worst for FR events and this has been upgraded to a 60 GHz connection which does not suffer from FR (and is also considerably faster). There continue to be a small number of incidents of false RADAR detection on a few access points interrupting the service for a couple of minutes. Where other point to point links suffer from false RADAR events will be upgraded to 60 GHz if they are suitable.

Internet Gateways - No issues

Backbone relays - Creag Mhaol - The Achmore side relays have had backup devices installed these will be upgraded to AC Next Gen units in due course.

Subscriber Connections

Portchullin - The long term use of the new plastic enclosures is under review.

Strome Ferry - The problem of the signal being affected by the rise and fall of the tides has been ameliorated by upgrading to the latest technology and using a very high bandwidth connection.

Subscriber's Bandwidth - There are no bandwidth issues; we have set up more monitoring and testing to give advance notice of possible bottlenecks.

Equipment - The hardware continues to perform well with a just couple of failures of power supplies in the year.

CMNet Software -The software is performing well and is being developed to provide more functionality.

There are many people to thank for their help:-

Fay Mackenzie who has so kindly given us permission to use Creag Mhaol and The Glen for our relays

Dave Whittingham and Beccy Smith who are hosting equipment in Ardaneaskan

Ken Hopper for his help with installations in Ardaneaskan

Andrew and Emma MacKenzie who are hosting equipment

George Hendry at the Lochcarron Shinty club

David Geddes who is hosting a relay in North Strome which allows Strome Ferry to be connected

I would also like to thank all our potential subscribers for being so patient.

Finally I would like to thank my fellow directors who have all freely given their time and expertise.

Please accept my apologies if I have missed anyone off this list.

Phil