

Broadband Steering Group

Minutes of the Meeting held on the 18th July 2022 @ 7:30 pm at Fernaig House

1 Present and Apologies

Present: Phil Game, Mary MacBeth, Kath Smith, Neil MacRae

2 Approve and adopt previous minutes

The previous minutes for June, were proposed by Mary, seconded by Kath.

Copies of previous minutes are on our website at:-

<http://www.stromeferry-and-achmore.co.uk/index.asp?pageid=433827>

3 Chairman's report

3.1 Bandwidth

After several abortive trips over to the shinty club when the sun refused to shine on Creag Mhaol we had one last attempt and again could not make out both relays using binoculars or a spotting scope and 6 eyes. However this time we brought along a dish ready configured in the hope that we might get a connection to Creag Mhaol and test the signal strength. Using the dish we were able to detect the relay largely due to Ken "steady hands" Hopper and Mary "eagle eyes" MacBeth. We now know which locations have a clear line of sight and can position our dish to get the best signal. Special thanks to Ken Hopper who gave up his Sunday afternoon to play "Aim that dish". **Action: Phil & Mary**

3.2 False RADAR

There have been no false RADAR events affecting North Strome since the unit was replaced, further testing will be required. **Action: Phil**

It looks like the issue with the link to the server may be something other than false RADAR, further investigation is required. **Action: Phil**

There was a report of poor performance on the Fernaig Access point. At the time it was not clear what was causing the problem however subsequent software reports and investigations showed that the neighbouring Achmore access point had jumped frequency to overlap with Fernaig thus causing interference to both access points. In an attempt to identify this sort of potential conflict a major upgrade is underway to our configuration checking software. The first phase to document frequencies and compare radios that can "see" each other is complete and is being used to reduce potential conflicts. The second phase will be to log events by time and radio to identify which radios are event free and which need attention. **Action: Phil**

3.3 Spurious Addresses

Further investigation is required. **Action: Phil**

3.4 Subscribers

Live subscribers	- 58
Waiting for activation	- 0
Waiting for subscriber's confirmation of details / deposits	- 0
Pending installations	- 0
Waiting for installations	- 14
Leavers since the last minutes	- 0
New joiners since the last minutes	- 0
Total	- 72

No new installations this month.

We have had requests for connections in Lochcarron, Strathcarron and Balnacra; once our existing commitments have been met we will see if these are feasible and schedule the work. **Action: Phil**

We have had an enquiry for a new connection and have been told by the subscriber that they do not have line of sight. We visited the site and have given the subscriber a series of options to "bounce" the signal to their property. **Action: Subscriber**

See section 8.7 for more details on implementations

4 Secretary's report

4.1 Risk register

No progress this month.

4.2 Long term support plan

Work continues to adapt our software which will clone devices to work with the “AC Gen 2” units. Our software has been updated to compare individual parameters across different hardware groups to produce the most robust configuration.

Action: Phil

4.3 Access to the bank account

RBS has told Mary that it is not possible to have two commercial accounts on the same personal account so Mary has asked RBS to set up a second account so she can access the CMNet account. **Action: RBS / Mary**

5 Finance Director's Report

5.1 Monthly Statistics

Revenue for June

Brought forward

Balance		£3,100.21		
Creditors			£10,664.33	
Debtors			£9,597.08	
Net				£1,067.25
Bank balance				£11,360.21

This month

Income	£694.40			
Expenditure	£122.97			
P&L		£571.43		
Creditors			£42.24	
Debtors			£50.40	
Net				-£8.16
Adjusted P&L				£563.27

Carried forward

Balance		£3,671.64		
Creditors			£10,706.57	
Debtors			£9,647.48	
Net				£1,059.09
Bank balance				£11,923.48

5.2 Outstanding Expenses Claims

One claim is outstanding from Mary to cover this year's insurance premium. **Action Mary**

5.3 This year's surplus

We are on target to make a surplus of ~£4,000 this year, following on from last month there was further discussion as to the best use for the money. It was decided:-

The new joiner's premium will be cut from £60 to £30. Subscribers who have paid over £30 NJP will have the balance credited to their account on 31/8/2022. I.e. if a subscriber has paid £60 they will be due a £30 refund. If a subscriber has paid £40 they will be due a £10 refund. To be eligible for the refund subscribers must be in contract on the last day of August 2022 and remain subscribers until the last day of August 2023. Anyone currently paying the NJP will have their monthly rate adjusted to cap their payments at £30. Anyone serving notice to leave CMNet before 31/8/2023 will have to repay their NJP rebate in full. After 31/8/2022 the NJP will be reduced from £5 to £2.50 a month and will be collected in twelve monthly payments

We will upgrade some of the Creag Mhaol access points to the latest technology and add backup units where these are currently not in place.

Where signals are weak due to the distance of the link we will upgrade subscriber's external antenna.

We will start a program to upgrade subscriber's single band internal routers to twin band.

5.4 Next year's tariff

The total number of gigabytes sold was 16,500, which makes the break even tariff for 3 fibre lines 148 GB per £1 and for 4 fibre lines 120 GB per £1.

There was further debate about the options for amending the tariff next year and it was decided:-

The £5 standing charge will remain as is to provide some leeway for likely electricity charge increases. The variable charge of £1 per 75 GB will be halved to £1 per 150 GB. Subscribers will have the option to reduce their monthly payments and / or increase their quotas. The minimum charge will remain at £6 now for 150 GB rather than 75 GB.

5.5 *Outstanding subscribers' debt*

All payments are up to date. **Action All**

5.6 *Housekeeping*

Work continues to automate the reconciliation of payments; priority will be given to Zen & Plusnet. **Action: Phil**

5.7 *Payments for installations of subscriber's equipment*

All payments are up to date.

6 **Internal auditor's report**

It was agreed we would prepare a synopsis of our current practises, needs and areas of weakness to assist ourselves and the auditor. No progress this month. **Action: Phil**

6.1 *Assets, bf, acquired, relinquished / written off, cf*

No progress this month.

6.2 *Liabilities*

No progress this month.

6.3 *Description of the Audit Trail*

No progress this month.

7 **Customer Relations**

7.1 *Production Environment*

7.1.1 *Issues raised by Subscribers*

7.1.1.1 *How can subscribers contact CMNet when the internet is down?*

We will investigate the options; ideally the CMNet support team needs to receive problem reports via email so our initial investigations will be whether voice mails can be forwarded via email.

7.1.1.2 *Fernaig*

One incident of poor speeds reported, this was due to a frequency conflict with the Achmore access point. See 3.2

7.1.1.3 *Achmore*

No issues

7.1.1.4 *The Glen*

No issues

7.1.1.5 *Braeintra*

One subscriber has reported poor performance in Braeintra - this is down to obstructions in the line of sight of the subscriber's antenna. **Action: Subscriber**

7.1.1.6 *Craig*

No issues

7.1.1.7 *Ardaneaskan East*

No issues

7.1.1.8 *Ardaneaskan West*

No issues

7.1.1.9 *Leacanashie*

No issues

7.1.1.10 *North Strome*

One subscriber is having issues preventing the installation of a whole house Wi-Fi system. **Action: Phil**

7.1.1.11 *Strome Ferry*

No issues

7.1.1.12 *Ardnarff*

No issues

7.1.2 *Usage quotas*

The monthly total for June was 7.5 TB, the daily average was 251 GB, with a peak usage of 317 GB on Saturday 25th.

CMNet peaks since operations started; highest average daily usage 282 GB, highest single days usage - 433 GB, highest monthly usage - 8.7 TB.

Four subscribers exceeded their quota in June.

7.1.3 Possible virus infection

No new instances of the Ubiquiti virus were detected; we will continue to run scans. **Action: Phil**

7.1.4 Planned upgrades of equipment

7.1.4.1 Fernaig

The access point will be upgraded and a backup installed. **Action: Phil.**

7.1.4.2 Achmore

The access point will be upgraded and a backup installed. **Action: Phil.**

7.1.4.3 The Glen

One access point will be upgraded to see if that will reduce the noise levels. **Action: Phil**

7.1.4.4 Braeintra

The access point will be upgraded and a backup installed. **Action: Phil.**

7.1.4.5 Craig

We are investigating a report of drop outs. We will review the situation when we have more experience of low level links over water or other options become available. **Action: Phil**

7.1.4.6 Ardaneaskan East

No issues

7.1.4.7 Ardaneaskan West

No issues

7.1.4.8 Leacanashie

No issues

7.1.4.9 North Strome

No issues

7.1.4.10 Strome Ferry

No issues

7.1.4.11 Ardnarff

No issues

7.1.5 Backbone relays

7.1.5.1 Plockton

We will check the installation and apply a second coat of paint to the school wall. **Action: Phil & Mary**

7.1.5.2 Achmore

The Plusnet router will be replaced with something more suitable. No progress this month. **Action: Phil**

To test the maximum speed that the radio link from Achmore Hall to Creag Mhaol will support the router in Achmore Hall will need to be upgraded. At the moment it has “only” 100 Mbps Ethernet ports and it is expected that the radio link will be able to run well over this speed. However we test the speed from router to router so the 100 Mbps port on the Achmore Hall router would be the limiting factor. We will therefore replace the router with one that can support 1 Gbps Ethernet ports; we have a suitable router “in stock”. The corresponding router on Creag Mhaol has already been upgraded. No progress this month. **Action: Phil**

7.1.5.3 Lochcarron A

Link capacity testing is required. **Action: Phil**

We will install a Raspberry Pi micro computer to facilitate gateway line speed tests. **Action: Phil**

7.1.5.4 Lochcarron B

See section 3.1 for the current status.

7.1.5.5 Other relays

The damaged Strome Low relay dish that connects to Achmore High will be recovered when we next schedule work on Creag Mhaol. **Action: Phil**

The Creag Mhaol dish that connects to Ardaneaskan West that was replaced after storm damage is showing some slight dips in signal strength. This is probably due to a damaged housing, the housing will be replaced when we next schedule work on Creag Mhaol. **Action: Phil**

7.1.6 System monitoring servers

The MikroTik server (“The Dude”) is having its database rebuilt - the newly installed equipment has been set up but there is still more work to do. **Action: Phil**

7.1.7 Documentation

Phil is part way through a document to list the options for automatic recovery of failures and loss of capacity. No progress this month. **Action: Phil**

7.1.8 Customer Contracts

We will check that all changes to customer contracts and charges are now correct. **Action: Phil**

7.2 Changes for next month

7.2.1 Additional Management tools / reports

Management Reporting Software upgrades. No progress this month. **Action: Phil**

Software to check the configuration of equipment - this is being upgraded to increase the automation when configuring new devices and simplify the configuration of backup units. **Action: Phil**

7.2.2 Potential personal safety issue

The new naming standard has been used for all the new installations. **Action: Phil**

7.2.3 Additional equipment for subscribers

Additional access points have been requested and will be installed for a subscriber in Leacanashie. **Action: Phil , Ken**

7.3 Volume trial

7.3.1 Review of the trial

No progress this month. **Action: Phil**

7.4 Terms of Reference

Deferred

7.5 Problem reporting procedure

A trial WhatsApp group has been set up by Mary - testing is continuing amongst directors. **Action: All**

8 General topics

8.1 Documentation

8.1.1 Creag Mhaol

We have received a draft lease agreement from our solicitors; we have yet to go through this in detail. We will need to reconfirm all the GPS coordinates of the relays before we can proceed; priority will be given to completing the set up of the relays on Creag Mhaol. No progress this month. **Action: Phil**

8.2 Backbone development

8.2.1 New relays

8.2.1.1 Completed

No progress this month.

8.2.1.2 Next steps

The new relay automated recovery algorithms are being tested (some rather unexpectedly)

The buried mains power cables need to be permanently marked and documented.

Action: All

8.2.1.2.1 Portchullin (raised beach)

The Portchullin enclosures will be upgraded. **Action: Phil**

Re-align the existing Portchullin Access Point

Install test equipment in Portchullin

8.2.1.2.2 Reraig

We have surveyed various locations for a relay to provide an access point for Reraig. Access will almost certainly require a much higher relay than we have built so far. We will return to the relay investigation and build once the current relays are active. **Action: Phil**

8.3 Testing

8.3.1 Management & accounting software

Nothing to report

8.4 Restoring power to the old TV repeater

8.4.1 Removal of old cable

No progress this month.

8.4.2 Protection of cable on the hill

All the cable on the hill has been buried but the routes still need to be marked.

8.4.3 Backup Generator

No progress this month.

8.5 ISPs

No issues

8.6 Implementations

8.6.1 Phase 3 - Relays and creation of access points for the remainder of residents and connect trial subscribers.

8.6.1.1 Ardaneaskan East

Two installations are waiting to be scheduled. **Action: Phil, Mary & Ken**

8.6.1.2 Strome Ferry

Four installations are waiting to be scheduled. **Action: Phil**

8.6.1.3 North Strome

One installation is waiting to be scheduled. **Action: Phil, Mary & Ken**

8.6.1.4 Achmore

One installation is waiting to be scheduled. **Action: Phil**

8.6.1.5 Portchullin

New enclosures have been purchased to act as replacements for the corroded units. **Action: Phil**

8.6.2 Phase 4 - Further investigations / backbone development required.

8.6.2.1 Ardaneaskan West

8.6.2.2 Ardnarff

A survey has been completed and the subscriber has been informed of the options. **Action: Subscriber**

8.6.2.3 Reraig

8.6.2.4 Lochcarron

8.6.2.5 Strathcarron

8.7 Company Logo

No progress this month. **Action: All**

8.8 General Data Protection Regulation (Data Protection Act)

Nothing to report

9 Director's training session

9.1 Configuring Ubiquiti and MikroTik equipment

No progress this month. **Action: All**

10 Next meeting

Date of next meeting Monday 22nd August 19:30.

The meeting finished at 9:15 pm