

Broadband Steering Group

Minutes of the Meeting held on the 14th November 2022 @ 8:00 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 October, were proposed by Kath, seconded by Mary.

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

There are no bandwidth issues.

3.2 False RADAR

In the past month there have been a series of FR events - mostly affecting the backbone linkages, the link to the Achmore gateway and to a lesser extent Ardaneaskan west and North Strome. With the exception of the Achmore gateway link we believe that these have now been brought under control. We propose to upgrade the Achmore gateway to 60 GHz which is not subject to FR events. **Action: Phil**

3.3 Spurious Addresses

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

3.4 Subscribers

Live subscribers	- 56
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	- 1
New joiners since the last minutes	- 1
Total	- 70

A property has been sold; one subscriber has left and one subscriber has joined.

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**

See section 8.6 for more details on implementations

4 Secretary's report

4.1 Risk register

No progress this month.

4.2 Long term support plan

We have adapted our software to work with the "AC Gen 2" units; we are looking at options to clone replacements devices remotely and in due course will look for volunteers at "remote" sites to hold spares. **Action: Phil**

4.3 Access to the bank account

After months of effort Mary has finally been given online access for the bank account. **Completed**

4.4 Broadband in Achmore Hall

The Hall committee has suggested that the installation for the Hall's use should be for a peppercorn rate. There was a long discussion covering the ramifications if we were to make the installation in the Hall a special case. Mary will write up the results and respond to Jackie Parsons. **Action: Mary**

The installation is now pending an agreement with the Hall committee.

5 Finance Director's Report

5.1 Monthly Statistics

Revenue for October

Brought forward

Balance	£626.69		
Creditors		£14,788.75	
Debtors		£12,052.28	
Net			£2,736.47

Bank balance

£11,111.13

This month

Income	£531.00
Expenditure	£438.23

P&L

£92.77

Creditors		£81.80	
Debtors		£943.19	
Net			-£861.39

Adjusted P&L

-£768.62

Carried forward

Balance	£719.46		
Creditors		£14,870.55	
Debtors		£12,995.47	
Net			£1,875.08

Bank balance

£10,342.51

We noticed an error in last month's figures where the carried forward amount was shown as £555.22; this should have been £0.00 as we started a new financial year in September. The carried forward figure has been corrected this month.

5.2 Outstanding Expenses Claims

All claims are up to date.

5.3 This year's surplus

Another batch of cheques was written and is ready for despatch; more reminders will be sent to subscribers who have not yet altered their monthly payments. This will be the final reminder; if there is no response then we will assume subscribers want a quota increase and adjust their contracts accordingly. **Action: All**

5.4 Next year's tariff

The total number of gigabytes sold was 20,100, which makes the break even tariff for 3 fibre lines 180 GB per £1 and for 4 fibre lines 146 GB per £1.

5.5 Outstanding subscribers' debt

All accounts are up to date.

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

No issues

7.1.1.3 Achmore

No issues

7.1.1.4 The Glen

No issues

7.1.1.5 Braeindra

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

7.1.1.6 Craig

We have asked a subscriber to check the line of sight for obstructions. **Action: Subscriber**

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**

All subscribers were offline for a few hours caused by one of the routers on Creag Mhaol failing. Although the backup router and backup dishes were brought into service we could not power off the primary dishes which were powered via the failed router. This meant that subscribers' antennas could not be connected to the backup units. In the end Mary went up to the relay on Creag Mhaol and manually powered off the failed router which then restored the service. We will look at further options to allow us to power off the routers remotely. The replacement router has been configured and has been installed. **Completed**

The failed router was found to be working order when tested; it just needed to be rebooted!

7.1.1.11 Strome Ferry

All subscribers were offline for a few hours as one of the routers on Creag Mhaol failed as mentioned above. This was the same issue as explained for North Strome but as the access point was already running on the backup router there was no problem trying to power off the unit and service was restored by remotely making a configuration change to bypass the primary router. The replacement router has been configured and has been installed. **Completed**

The failed router was found to be working order when tested; it just needed to be rebooted!

One subscriber requested an additional access point; the new access point has been installed. **Completed**

7.1.1.12 Ardnarff

No issues

7.1.2 Usage quotas

The monthly total for October was 9.4 TB (new record), the daily average was 305 GB (new record), with a peak usage of 678 GB (new record) on Monday 10th.

CMNet peaks since operations started; highest average daily usage 305 GB, highest single days usage - 678 GB, highest monthly usage - 9.4 TB.

Three people exceeded their quota in October.

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

An “old” unit has been configured as a backup and has been installed and tested. **Completed**

7.1.4.2 Achmore

An “old” unit has been configured as a backup and has been installed and tested. **Completed**

7.1.4.3 The Glen

A new unit has been configured to replace the dish on Creag Mhaol; it and a backup will be installed when weather permits. Although we planned to upgrade this link it was not possible as there is not enough space on the relay until the Achmore link has been moved and upgraded to 60 GHz. **Action: Phil.**

7.1.4.4 Braeintra

A new unit has been configured to replace the dish on Creag Mhaol; it and a backup have been installed and tested. **Completed**

The upgraded access point is highlighting potential alignment errors on subscribers’ antenna, further investigation is required. **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

A new unit has been configured to replace the dish on Creag Mhaol; it and a backup have been installed and tested. **Completed**

The relay on Creag Mhaol has been fitted with wire guy ropes to prevent movement in high winds which otherwise might cause the signal strength to drop. **Completed**

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**

The 60 GHz dishes have been tested “in the lab” and have throughput speeds of 1,600 Mbps i.e. about 10 times the speed of the current link. We have installed a remotely powered 60 GHz dish on Creag Mhaol so we can test a link “in the field”. If the dishes perform as expected it gives us a straightforward upgrade path to add new lines. The 60 GHz dish is slightly larger than the current 5 GHz dish so we are checking that the Hall committee are OK with the switch before proceeding with the installation. **Action: Phil**

7.1.5.3 Lochcarron A

No issues.

7.1.5.4 Lochcarron B

No issues.

7.1.5.5 Other relays

The damaged Strome Low relay dish that connects to Achmore High has been replaced. **Completed**

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**

Our version of the standard MikroTik “Netwatch” function is being tweaked to give the most accurate results. **Action: Phil**

We have written a series of scripts for the MikroTik gateways to report if the CMNet internal connection speeds drops below our target of 30 Mbps download and 14 upload. This should identify any frequency conflicts not picked up by other monitoring software. **Action: Phil**

The Creag Mhaol dish that connects to the server has been replaced and a backup unit has been installed. **Completed**

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

Nothing to report

7.3 Volume trial

7.3.1 Review of the trial

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

7.4 Terms of Reference

Deferred

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.

All the outstanding issues have been resolved and we are configuring the new subscribers' equipment ready to start the installations for the next batch of subscribers. **Action: Phil**

8.6.1.1 Ardaneaskan East

All installations have been completed.

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

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

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)

We will review our GDPR policy. **Action: Mary**

9 Director's training session

9.1 Configuring Ubiquiti and MikroTik equipment

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

10 AoB

CMNet was forwarded a copy of a letter from a director of Digital Directorate raising a concern relating to CMNet procedures. To clarify the position CMNet contacted the Digital Directorate and a director replied saying that there was no fault with CMNet's procedure. **This topic is now closed.**

11 Next meeting

The next meeting TBA

The meeting finished at 9:30 pm