Broadband Steering Group

Minutes of the Meeting held on the 26th September 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 August, were proposed by Mary, seconded by Neil.

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

The new Lochcarron line is now in service and the load balanced between our three gateways. When our next capacity upgrade is due we will add another line in Achmore Hall. To cope with the increased capacity we have purchased 60 GHz radios which should cope easily with several additional lines in Achmore. 60 GHz also has the advantage of not being subject to false RADAR events, but the downside is that they are unsuitable for long distance connections. **Action: Phil**

3.2 False RADAR

Our new software has helped with a significant reduction in false RADAR events on Strome side radios; it seems likely that the interference was being caused by third party transmitters. We are still suffering from FR on the Achmore Hall link and so as mentioned above this will be upgraded to 60 GHz.

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	- 0
New joiners since the last minutes	- 0
Total	**- 70**

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

Mary now has access to the bank account and is waiting for online access to be activated. **Action: RBS / Mary**

4.4 Broadband in Achmore Hall

Mary met with Jackie Parsons to discuss options for an installation in Achmore Hall and this was subsequently discussed and agreed by the Hall committee. The likely installation date is next spring. **Action: Mary**

5 Finance Director's Report

5.1 Monthly Statistics

Revenue for August

Brought forward

Balance			**£4,123.70**	
Creditors		£10,701.97		
Debtors		£9,743.98		
Net			£957.99	
Bank balance				**£12,274.44**

This month

Income	-£720.00			
Expenditure	£3,073.32			
P&L		**-£3,793.32**		
Creditors		£4,187.28		
Debtors		£81.00		
Net			£4,106.28	
Adjusted P&L				**£312.96**

Carried forward

Balance		**£330.38**		
Creditors		£14,889.25		
Debtors		£9,824.98		
Net			£5,064.27	
Bank balance				**£12,587.40**

5.2 Outstanding Expenses Claims

All claims are up to date.

5.3 This year's surplus

We have started the refund of the NJP, the first batch of cheques are ready for distribution. If subscribers' monthly payments are not correct the dispatch of cheques will be deferred. All subscribers have been notified of the changes and where necessary reminders were sent out in September.

In August we purchased ~ £2,700 of equipment. Some has been received and is being configured ready for installations. However some items needed to provide backups are out of stock at the suppliers and may not be received for a while yet. As a temporary measure we may use some "old" kit as backups if the new kit has not arrived.

5.4 Next year's tariff

The total number of gigabytes sold was 19,350, which makes the break even tariff for 3 fibre lines 173 GB per £1 and for 4 fibre lines 140 GB per £1.

The new tariff rate of £1 per 150 GB came into effect on the 1st September.

5.5 Outstanding subscribers' debt

There are a few subscriber payments that still to be adjusted after the new tariff rates. **Action Subscribers**

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 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

The subscriber's problems using a Sky Box were resolved after a call to Sky. **Completed**

One subscriber reported a loss of connection - their AirRouter was replaced. **Resolved**

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. **Action: Phil**

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. **Action: Phil**

One subscriber has requested an additional access point. **Action: Phil**

7.1.1.12 Ardnarff

No issues

7.1.2 Usage quotas

The monthly total for August was 7.5 TB, the daily average was 242 GB, with a peak usage of 367 GB on Saturday 6th.

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

Two subscribers exceeded their quota in August.

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**

The current 5GHz radio link will be replaced with a 60 GHz link. **Action: Phil**

7.1.5.3　Lochcarron A

The broadband line at Lochcarron A has been cancelled.

7.1.5.4　Lochcarron B

The new line is now in service.

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 failed Strome Low relay router will be replaced 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**

We have written an improved version of the standard MikroTik "Netwatch" function. Our version takes into account the standard maintenance timeslots and the topology of our network and should greatly reduce the number of email notifications sent thus making problem analysis much simpler. In due course this will be installed on all routers that need a monitoring function. **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

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.

There will be a short delay before we can progress the next batch of installations due to the failed router on Creag Mhaol - see 7.1.1.10 / 11. Although the backup units are now in use and the service has been restored to all subscribers a side effect has been to restrict our monitoring software to the Achmore side of Creag Mhaol. This means we cannot automatically monitor the units on the Strome side of Creag Mhaol via our software packages. The next batch of installations is in this unmonitored area and it would be too great a risk to change configurations and install new equipment that cannot be easily monitored. As soon as we have replaced the failed unit and restored the link between Achmore side and Strome side the installations will proceed. **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

Correspondence was received just prior to the meeting and will be dealt with at subsequent meetings when time allows.

11   Next meeting

Date of next meeting Monday 10th October 19:30.
The meeting finished at 9:45 pm