

Broadband Steering Group

Minutes of the Meeting held on the 17th March 2025 @ 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 February 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

This month most effort has gone into configuring the new server and starting the preparatory work to submit the annual accounts to Companies House and HMRC.

3.1 Bandwidth

Updates to our systems software will be required to incorporate parameters for latency. **Action: Phil**

Our systems software will be amended to disregard VPN traffic as this distorts the logs. **Action: Phil**

3.2 False RADAR

There were 24 false RADAR events recorded since the last progress report. These came in fits and spurts one radio being affected several times a day over a few days and then the FR events stopped for that radio and affected another unit.

Most of these events took place overnight, there was no obvious cause. Once the new server (see 3.5) and UISP have been installed and tested and we have enough data we will review the frequency map. **Action: Phil**

Most of the access points on Creag Mhaol are scheduled to be upgraded to units which will automatically map frequency channels to help better manage our frequency usage. **Action: Phil**

3.3 Creag Mhaol upgrades

Work on Creag Mhaol has been suspended until the days are longer and warmer. **Action: Phil & Mary**

3.4 OSPF

OSPF (which manages the distribution of addresses between routers) is not working in a small number of instances.

OSPF is a critical piece of software as it allows us to automate the recovery of any failed component. To get around the OSPF problem we have had to manually enter addresses which defeat the object of using OSPF. No progress this month. **Action: Phil**

3.5 New Server

The new server is still being tested and we do not have a date to move it into production. It is proving to be ridiculously difficult to configure the unit to restart all software automatically after a power outage. Automating the software restart is very temperamental and the various layers (Windows, wsl, Linux, Docker, Linux container with UISP server) all work fine when set up manually but refuse to work when automated after a reboot. Automatic restart after a power outage is the preferred configuration as client devices automatically search for a UISP server to connect every minute or so. If this is not successful the error messages produced will completely fill up logs rendering them useless for normal problem determination. Usually there is plenty of help online to explain what is required but it seems that there are few, if any, examples of our specific mix of operating system and software which means an awful lot of trial and error is required. **Action: Phil**

Once the new server has been shown to perform satisfactorily we will buy a second to use as a backup. **Action: Phil**

3.6 Subscribers

Live subscribers	- 70
Waiting for activation	- 0
Waiting for subscriber's confirmation of details / deposits	- 0
Pending installations	- 0
Waiting for installations	- 12
Leavers since the last minutes	- 0
New joiners since the last minutes	- 0
Total	- 82

We received a second request for an installation in Ardaneaskan and are still waiting for input from the potential subscriber to confirm that the line of sight is clear and can be maintained. **Action: Subscriber**

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**

3.7 ISPs

Nothing to report

4 Secretary's report

No news regarding usage only (i.e. no standing charge) tariffs for electricity supply. **Action: Mary**

4.1 Risk register

No progress this month.

4.2 Long term support plan

Our software to verify and clone configurations is being updated to incorporate the latest devices and latest configuration enhancements e.g. latency tests. No progress this month. **Action: Phil**

In due course we will look for volunteers at "remote" sites who can hold and configure spare equipment. **Action: Phil**

4.3 Broadband in Achmore Hall

The Hall router will be switched for an AirRouter so that the hall committee can take control of the WiFi password.

Action: Phil

5 Finance Director's Report

Revenue for February

Brought forward

Balance	£1,881.69		
Creditors		£4,672.18	
Debtors		£4,837.48	
Net			-£165.30
Bank balance			£10,396.84

This month

Income	£664.50		
Expenditure	£374.19		
P&L	£290.31		
Creditors		£199.80	
Debtors		£32.00	
Net			£167.80
Adjusted P&L			£458.11

Carried forward

Balance	£2,172.00		
Creditors		£4,871.98	
Debtors		£4,869.48	
Net			£2.50
Bank balance			£10,854.95

The projected surplus for this financial year is ~£2,000; we have already decided to spend ~£300 on an external disk for

The Dude and a mini PC to create a backup server. **Action: Phil**

There was some debate about the timing of any further purchases this year and it was decided to buy the equipment for this year's planned upgrades to the 60 GHz dishes first, when they are back in stock, as we plan to make these changes this summer. **Action: Phil**

The 60 GHz upgrades comprise:-

One additional 60 GHz dish price £180 + delivery (out of stock)

Seven 60 GHz alignment mounts, price £60 + delivery (only 6 in stock)

That will leave us with a projected surplus of £1,500 and we will decide how best to use this later in the year.

5.1 Outstanding Expenses Claims

All claims are up to date

5.2 Next year's tariff

Total number of bytes sold was 30,000 GB; which makes the break-even tariff for 4 fibre lines 216 GB per £1 and for 5 fibre lines 172 GB per £1.

5.3 Outstanding subscribers' debt

Two accounts are in arrears **Action: Kath**

5.4 Housekeeping

All payments have now been reconciled. **Completed**

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

Phil's proposal to formalise subscribers' problem reports is being held back for the moment pending our investigations regarding sending emails when the network is down. **Action: Phil**

7.1.1.2 Fernaig

No issues

7.1.1.3 Achmore

Our systems software is showing one subscriber's AirRouter is offline, this is being investigated. **Action Neil**

7.1.1.4 The Glen

No issues

7.1.1.5 Braeindra

One subscriber has reported poor performance - the logs show that CMNet was working well during this period; it is suspected that the poor performance is due to contention on the subscriber's domestic network. Additional monitoring was added to the subscriber's router which did not show any issues. As there have been no further issues reported by the subscriber this problem will be closed. **Closed**

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 has reported poor performance - the logs showed that CMNet was working well and it is suspected that the poor performance is due to a known issue with Apple WiFi. The problem unit will be connected by Ethernet.

Action: Subscriber

One subscriber reported problems when recording using SkyQ it appears that the problem is related to the Achmore gateway using several internet connections. As a temporary measure their traffic has been re-routed through Plockton (one internet gateway) we will review the Achmore router's configuration in due course. **Action: Phil**

7.1.1.11 *Strome Ferry*

No issues

7.1.1.12 *Ardnarff*

Poor speeds between buildings have been traced to mains LAN extenders not connecting properly probably caused by “noise” on the mains power these will be replaced with radios to link the buildings. We delivered another bracket and fitting for the subscriber to install. **Action: Subscriber**

7.1.2 *Usage quotas*

The monthly total for February was 10.2 TB, the daily average was 363 GB, with a peak usage of 473 GB on Sunday 23rd. No one exceeded their quota.

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 upgraded access point has been configured and is ready to install. **Action: Phil**

7.1.4.2 *Achmore*

The upgraded access point has been configured and is ready to install. **Action: Phil**

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. **Action: Phil.**

7.1.4.4 *Braeintra*

No issues

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*

The primary access point has failed and will be replaced **Action: Phil & Mary**

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 60 GHz dish mount will be upgraded. **Action: Phil**

An operating system upgrade to the Raspberry Pi corrupted the micro SD card, the unit has been recovered the operating systems upgrade has been installed and the unit is being configured so it can be replaced. It turns out that the new OS is not compatible with Remote Desktop and so the OS will have to be downgraded to an earlier version **Action: Phil**

7.1.5.3 *Lochcarron*

No issues.

7.1.5.4 *Other relays*

No issues.

7.1.6 *System monitoring servers*

The MikroTik server (“The Dude”) is to have its memory stick replaced by an external disk. **Action: Phil**

In the long term AirControl will be replaced by the new Ubiquiti monitoring software UISP. **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

One contract is outstanding

7.2 Changes for next month

7.2.1 Additional Management tools / reports

Management Reporting Software upgrades. No progress this month. **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 are waiting for a subscriber to provide details of the land they own so we can determine where to install their relay.

Action: Subscriber

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

Nothing to report

8.6 Implementations

8.6.1 Phase 3

8.6.1.1 Ardaneaskan East

All installations have been completed.

8.6.1.2 Ardnarff

One installation needs to be upgraded. **Action: Subscriber**

8.6.1.3 Strome Ferry

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

8.6.1.4 North Strome

All installations have been completed.

8.6.1.5 Achmore

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

8.6.1.6 Portchullin

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

8.6.1.7 Craig

All installations have been completed.

8.6.1.8 Leacanashie

All installations have been completed.

8.6.2 Phase 4 - Further investigations / backbone development required.

8.6.2.1 Ardaneaskan West

8.6.2.2 Reraig

8.6.2.3 Lochcarron

8.6.2.4 Strathcarron

8.6.2.5 Balnacra

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

Phil played the role of a subscriber reporting no internet whilst Neil and Kath worked through the problem step by step until the fault was narrowed down to allow the faulty unit to be cloned and then tested.

10 AoB

11 Next meeting

Monday 7th April at 7:30 pm to concentrate on the annual accounts for Companies House & HMRC

If necessary there will be another meeting to handle the normal month's business.

The meeting finished at 9:15 pm