

Broadband Steering Group

The January meeting scheduled for the 23rd January had to be cancelled due to plans having to be altered because of the bad weather.

Via email exchanges we made progress on some issues which are summarised below.

If the weather permits we will meet in February.

1 Chairman's report

1.1 Bandwidth

There have been no reports of bandwidth issues; however the stats for the Achmore line are suggesting there might be a loss of capacity on the Plusnet internet connection. We will set up some automated testing to investigate further.

Action: Phil

1.2 False RADAR

The connection from Creag Mhaol to the Achmore gateway will be upgraded to 60 GHz which is not subject to FR events. We are waiting for Ofcom to process our license request. **Action: Phil**

In addition to the link to the Achmore gateway there have been a couple of false RADAR events in the last month.

1.3 Subscribers

Live subscribers	- 60
Waiting for activation	- 0
Waiting for subscriber's confirmation of details / deposits	- 0
Pending installations	- 0
Waiting for installations	- 11
Leavers since the last minutes	- 0
New joiners since the last minutes	- 0
Total	- 71

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**

1.4 New equipment

Two AirRouters have failed this month so it seems likely that after 10 years they are starting to come to the end of their useful life. It was decided we would purchase more dual band MikroTik routers to hold in stock for spares. **Action: Phil**

It was also decided we would buy a dedicated support laptop rather than depend on directors' equipment. One of the MikroTik routers will be configured to use when equipment needs to be cloned. This will then be used as a recovery centre to configure equipment that has failed and needs to be replaced. **Action: Phil**

2 Secretary's report

2.1 Risk register

No progress this month.

2.2 Long term support plan

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

2.3 Broadband in Achmore Hall

The installation is now on hold pending further debate with the Hall committee.

3 Finance Director's Report

3.1 Monthly Statistics

Revenue for December

Brought forward

Balance	£728.96			
Creditors		£15,238.12		
Debtors		£13,931.97		
Net			£1,306.15	
Bank balance				£9,783.08

This month

Income	£491.31			
Expenditure	£101.42			
P&L	£389.89			
Creditors		£35.05		
Debtors		£192.50		
Net			-£157.45	
Adjusted P&L				£232.44

Carried forward

Balance	£1,118.85			
Creditors		£15,273.17		
Debtors		£14,124.47		
Net			£1,148.70	
Bank balance				£10,015.52

3.2 Outstanding Expenses Claims

All claims are up to date.

3.3 This year's surplus

Another batch of cheques was written and is ready for despatch. **Action: All**

3.4 Next year's tariff

The total number of gigabytes sold was 22,050, which makes the break even tariff for 3 fibre lines 198 GB per £1 and for 4 fibre lines 160 GB per £1.

3.5 Outstanding subscribers' debt

One account is in arrears, the subscriber has been informed. **Action: Kath**

3.6 Housekeeping

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

3.7 Payments for installations of subscriber's equipment

All payments are up to date.

4 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**

4.1 Assets, bf, acquired, relinquished / written off, cf

No progress this month.

4.2 Liabilities

No progress this month.

4.3 Description of the Audit Trail

No progress this month.

5 Customer Relations

5.1 Production Environment

5.1.1 Issues raised by Subscribers

5.1.1.1 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. No progress this month.

5.1.1.2 Fernaig

No issues

5.1.1.3 Achmore

No issues

5.1.1.4 The Glen

A subscriber reported loss of service; this was traced to a faulty AirRouter, which was replaced. **Completed**

5.1.1.5 Braeintra

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

5.1.1.6 Craig

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

5.1.1.7 Ardaneaskan East

A subscriber reported a problem with an AirRouter; which was replaced. **Completed**

A subscriber reported loss of service; this was traced to a loose cable. **Completed**

5.1.1.8 Ardaneaskan West

No issues

5.1.1.9 Leacanashie

No issues

5.1.1.10 North Strome

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

5.1.1.11 Strome Ferry

No issues

5.1.1.12 Ardnarff

A subscriber has reported poor speeds; we are waiting for more details. **Action: Subscriber**

5.1.2 Usage quotas

The monthly total for December was 10.7 TB (new record), the daily average was 345 GB (new record), with a peak usage of 506 GB (new record) on Thursday 29th.

CMNet peaks since operations started; highest average daily usage 345 GB, highest single days usage - 708 GB, highest monthly usage - 10.7 TB.

Three subscribers exceeded their quota in December.

5.1.3 Possible virus infection

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

5.1.4 Planned upgrades of equipment

5.1.4.1 Fernaig

No issues

5.1.4.2 Achmore

No issues

5.1.4.3 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.**

5.1.4.4 Braeintra

The upgraded access point is highlighting potential alignment errors on subscribers' antenna, further investigation is required. **Action: Phil**

5.1.4.5 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**

5.1.4.6 *Ardaneaskan East*

No issues

5.1.4.7 *Ardaneaskan West*

No issues

5.1.4.8 *Leacanashie*

No issues

5.1.4.9 *North Strome*

No issues

5.1.4.10 *Strome Ferry*

No issues

5.1.4.11 *Ardnarff*

No issues

5.1.5 *Backbone relays*

5.1.5.1 *Plockton*

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

5.1.5.2 *Achmore*

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

The Hall committee have agreed that the current 5 GHz dish can be replaced with the 60 GHz dish. We have applied to Ofcom for a license and are waiting for their response. **Action: Phil**

5.1.5.3 *Lohcarron A*

No issues.

5.1.5.4 *Lohcarron B*

No issues.

5.1.5.5 *Other relays*

No issues.

5.1.6 *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**

5.1.7 *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**

5.1.8 *Customer Contracts*

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

5.2 *Changes for next month*

5.2.1 *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**

5.2.2 *Potential personal safety issue*

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

5.2.3 *Additional equipment for subscribers*

Nothing to report

5.3 *Volume trial*

5.3.1 *Review of the trial*

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

5.4 *Terms of Reference*

Deferred

6 General topics

6.1 Documentation

6.1.1 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**

6.2 Backbone development

6.2.1 New relays

6.2.1.1 Completed

No progress this month.

6.2.1.2 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**

6.2.1.2.1 Portchullin (raised beach)

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

Re-align the existing Portchullin Access Point

Install test equipment in Portchullin

6.2.1.2.2 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**

6.3 Testing

6.3.1 Management & accounting software

Nothing to report

6.4 Restoring power to the old TV repeater

6.4.1 Removal of old cable

No progress this month.

6.4.2 Protection of cable on the hill

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

6.4.3 Backup Generator

No progress this month.

6.5 ISPs

No issues

6.6 Implementations

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

All the equipment for the next batch of installations has been configured. **Completed**

6.6.1.1 Ardaneaskan East

All installations have been completed.

6.6.1.2 Strome Ferry

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

6.6.1.3 North Strome

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

6.6.1.4 Achmore

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

6.6.1.5 Portchullin

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

6.6.1.6 Craig

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

6.6.2 Phase 4 - Further investigations / backbone development required.

6.6.2.1 Ardaneaskan West

6.6.2.2 Ardnarff

All installations have been completed.

6.6.2.3 *Reraig*

6.6.2.4 *Lohcarron*

6.6.2.5 *Strathcarron*

6.7 *Company Logo*

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

6.8 *General Data Protection Regulation (Data Protection Act)*

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

7 *Director's training session*

7.1 *Configuring Ubiquiti and MikroTik equipment*

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

8 *AoB*

9 *Next meeting*

Monday 13th February