

Broadband Steering Group

Minutes of the Meeting held on the 15th December 2021 @ 7:30 pm by Zoom

1 Present and Apologies

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

2 Approve and adopt previous minutes

The previous minutes for November, 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

Quite a bit of time has been spent working on NJP rebates and accounts this month; it would reduce our workload if subscribers would please adjust their subscriptions as soon as possible when asked.

3.1 Bandwidth

There appeared to be some capacity issues with the Plusnet line in Achmore, testing of the line proved inconclusive and speeds recovered after a couple of days.

We are starting to see evidence that the current lines are becoming saturated for brief periods during the day and we therefore need to increase capacity before we add too many new subscribers. **Action: Phil**

New location at the Lochcarron Shinty Club - we will organise a visit to discuss in detail the location of our equipment.

Action: Mary

3.2 False RADAR

The false RADAR summary has been set up to run automatically overnight and its output has been used to reset units that have jumped frequency. It will be enhanced to automatically reset units thus avoiding some manual intervention. We will also investigate whether it can also be adapted to provide a "health check" to test that all access points are operational. **Action: Phil**

We continue to see a disproportionate number of false RADAR events on the Strome side access points and will look at other methods of gathering data to see if we can find the cause. **Action: Phil**

3.3 Subscribers

Live subscribers	- 53
Waiting for installations / activation	- 2
Waiting for subscriber's confirmation of details	- 0
Pending installations	- 3
Waiting for installations	- 12
Leavers since the last minutes	- 1
New joiners since the last minutes	- 0
Total	- 70

One subscriber's installation was completed in North Strome. The current pending installations are in Ardaneaskan East, North Strome and Leacanashie. **Action: Phil**

We have had requests for connections in Lochcarron and Strathcarron; 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 may review this when all other subscribers have been connected. **Action: Phil**

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. **Action: Phil**

4.3 Access to the bank account

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

5 Finance Director's Report

5.1 Monthly Statistics

Revenue for November

Brought forward

Balance	£571.80		
Creditors		£9,939.78	
Debtors		£8,397.09	
Net			£1,542.69
Bank balance			£9,307.24

This month

Income	£550.50
Expenditure	£127.48

P&L **£423.02**

Creditors		£70.40	
Debtors		£300.00	
Net			-£229.60

Adjusted P&L **£193.42**

Carried forward

Balance	£994.82		
Creditors		£10,010.18	
Debtors		£8,697.09	
Net			£1,313.09
Bank balance			£9,500.66

5.2 Last year's surplus

The fourth batch of subscribers to receive cheques refunding a portion of the New Joiner's Premium has been agreed and will be dispatched within the next few days. **Action: Kath, Neil, Phil & Mary**

There are **still** a few subscribers with anomalies on their accounts cheques will be issued as soon as these have been resolved. **Action: Subscribers**

5.3 Outstanding Expenses Claims

All expense claims are up to date.

5.4 Next year's tariff

The total number of gigabytes sold was 14,775. The break even tariff for 3 fibre lines is 132 GB per £1 and for 4 fibre lines 107 GB per £1.

5.5 Outstanding subscribers' debt

The outstanding debt is £20.80. **Action Kath**

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

We are still seeing sporadic problems with the Achmore access point. **Action: Phil**

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

Drop outs in Craig - we have not recorded any drop outs for several months; however we will continue to monitor the link. **Action: Phil**

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**

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**

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**

One subscriber reported no internet access, their AirRouter was replaced, and subsequent testing showed the fault was with the unit's power supply. Their new router is reporting a suspected fault on one or more of the subscriber's units their router has been amended to temporarily force the offending units offline - we are waiting for the subscriber to investigate further. **Action: Subscriber**

The North Strome units went offline on Saturday 11th and were recovered the following day. At the moment it is not clear what caused the outage it does not appear to be a false RADAR event. We will enhance our monitoring software to check and report on offline units. **Action: Phil**

7.1.1 Usage quotas

The monthly total for November was 8.5 TB (new record). The daily average was 282 GB (new record), with a peak usage of 432 GB (new record) on Saturday 20th.

CMNet peaks since operations started; highest average daily usage 282 GB, highest single days usage - 432 GB, highest monthly usage - 8.5 TB.

Three subscribers exceeded their quota and have had their contracts amended accordingly.

7.1.2 Possible virus infection

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

7.1.3 Installation of equipment

7.1.3.1 Achmore

Nothing to report

7.1.3.2 Ardaneaskan East

Nothing to report

7.1.3.3 Ardaneaskan West

Nothing to report

7.1.3.4 Ardnarff

Nothing to report

7.1.3.5 Braeintra

We will configure and install backup units for the Achmore side relays as soon as time permits. **Action: Phil.**

7.1.3.6 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**

7.1.3.7 North Strome

Nothing to report

7.1.3.8 Strome Ferry

The unit in North Strome has been replaced by a new Gen 2 access point and so far the new unit appears to be working very well; we will continue to monitor its performance over the coming weeks. **Action: Phil**

7.1.3.9 Other installations

Nothing to report

7.1.4 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

Ardaneaskan - One site has been scanned and a second Wi-Fi access point installed which is under test.

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 Existing Relays

8.2.1 Plockton

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

8.2.2 Achmore

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

The 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**

8.2.3 Lochcarron

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

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

8.2.4 Other relays

No issues.

8.3 Backbone development

8.3.1 New relays

8.3.1.1 Completed

No progress this month.

8.3.1.2 Next steps

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

Re-align the existing Portchullin Access Point

Add an additional Portchullin Access Point

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

Install one subscriber’s test equipment in Portchullin

Install backup equipment on Achmore High and Achmore Low relays

Action: All

8.3.2 [The Glen](#)

One access point will be upgraded to see if that will reduce the noise levels. No progress this month. **Action: Phil**

8.3.3 [Ardaneaskan East](#)

Nothing to report

8.3.4 [Leacanashie](#)

Nothing to report

8.3.5 [Portchullin \(raised beach\)](#)

The Portchullin enclosures and access points will be upgraded. **Action: Phil**

8.3.6 [Craig](#)

We will review the link when other work is complete. **Action: Phil**

8.3.7 [North Strome](#)

Nothing to report

8.3.8 [Strome Ferry](#)

The access point has been upgraded.

8.3.9 [Ardnarff](#)

Nothing to report

8.3.10 [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**

8.4 *Testing*

8.4.1 [Management & accounting software](#)

Nothing to report

8.5 *Restoring power to the old TV repeater*

8.5.1 [Removal of old cable](#)

No progress this month.

8.5.2 [Protection of cable on the hill](#)

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

8.5.3 [Backup Generator](#)

No progress this month.

8.6 *ISPs*

No issues

8.7 *Implementations*

8.7.1 [Phase 3 - Relays and creation of access points for the remainder of residents and connect trial subscribers.](#)

8.7.1.1 [Ardaneaskan East](#)

Equipment has been configured for two more installations.

One site was not a straightforward installation due to potential obstructions in the line of sight. To ensure that we could obtain a good signal at the site a test rig was set up to measure the actual signal strength on site at various locations.

This resulted in two possible locations for the antenna and four options to ensure a good signal. When these were presented to the subscriber they then decided to renege on their commitment to join CMNet thus wasting hours of time and effort. Yet more time and effort will now have to be spent removing their details from the system. **Action: Phil**

One installation is pending. **Action: Phil, Mary & Ken**

No further installations are waiting to be scheduled.

8.7.1.2 [Strome Ferry](#)

The upgraded access point in North Strome is still showing some drop in throughput due to the rise and fall of the tides however the connection speed is now so fast that the effect will not be noticeable to subscribers. The new unit is under trial and assuming there are no issues we believe we now have the best combination of signal strength, coverage and connection speed. Once the unit has been fully tested and we are sure we have sufficient additional capacity available we will commence the full roll out of installations. **Action: Phil, Neil**

8.7.1.3 [Leacanashie](#)

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

8.7.1.4 [North Strome](#)

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

8.7.1.5 [Achmore](#)

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

8.7.1.6 *Portchullin*

The enclosures at Portchullin have been measured so replacements can be prepared. **Action: Phil**

8.7.2 *Phase 4 - Further investigations / backbone development required.*

8.7.2.1 *Ardaneaskan West*

8.7.2.2 *Ardnarff*

8.7.2.3 *Reraig*

8.7.2.4 *Lohcarron*

8.7.2.5 *Strathcarron*

8.8 *Company Logo*

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

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

Nothing to report this month

9 **Director's training session**

9.1 *Configuring Ubiquiti and MikroTik equipment*

A training session was scheduled to follow the meeting to give everyone access to some of our monitoring software however as the meeting took place by Zoom this will be rescheduled and will be completed at a later date; more will follow in the coming months. **Action: All**

10 **Next meeting**

Date of next meeting Wednesday 12th January 19:30.

The meeting finished at 19:54 pm