Broadband Steering Group

Minutes of the Meeting held on the 17th January 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 December, were proposed by Kath, 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

Thanks to all CMNet's subscribers who have adjusted their payments and / or cashed their cheques. We have a few cheques waiting to be issued and when they are dispatched we will have completed this year's rebate payments.

3.1 Bandwidth

There were several very busy days in December which again showed that the current lines are becoming saturated and that we need to increase capacity before we add too many new subscribers. **Action: Phil**

New location at the Lochcarron Shinty Club - Mary has organised a visit to discuss in detail the location of our equipment. **Action: Mary**

Due to the difference in price and the problems with the Achmore Hall installation it was agreed that we would get the new line from Plusnet rather than Zen. **Action: Mary**

Due to the increased usage over the past couple of months and the current capacity limitations it was agreed that we would space out the installation of new subscribers and carefully monitor capacity during the roll out until the new capacity is online. If necessary installations would be paused pending the new capacity coming into service. **Action: Phil**

3.2 False RADAR

The false RADAR summary has been enhanced to automatically reset units that have jumped frequency thus avoiding manual intervention. This feature has recently been put live and is automatically rebooting units overnight to reset their frequency. We will 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. It is now clear that there are at least four access points visible to our radios that are not managed by CMNet. It is of course perfectly reasonable that others would want to set up their own broadband service. However the restricted number of channels and the knock on effect of false RADAR events does complicate the configuration for all parties in the area. We will investigate enhancing our software to scan and report on third party access points. **Action: Phil**

3.3 Subscribers

Live subscribers	- 54
Waiting for installations / activation	- 0
Waiting for subscriber's confirmation of details	- 0
Pending installations	- 3
Waiting for installations	- 12
Leavers since the last minutes	- 0
New joiners since the last minutes	- 0
Total	**- 69**

No changes this month. 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 December

Brought forward				
Balance	**£994.82**			
Creditors		£10,009.18		
Debtors		£8,696.09		
Net			£1,313.09	
Bank balance				**£9,500.66**
This month				
Income	£550.50			
Expenditure	£263.50			
P&L	**£287.00**			
Creditors		£19.04		
Debtors		£98.50		
Net			-£79.46	
Adjusted P&L				**£207.54**
Carried forward				
Balance	**£1,281.82**			
Creditors		£10,028.22		
Debtors		£8,794.59		
Net			£1,233.63	
Bank balance				**£9,708.20**

5.2   Last year's surplus

The fifth 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 15,225. The break even tariff for 3 fibre lines is 136 GB per £1 and for 4 fibre lines 110 GB per £1.

According to the latest financial projections we expect to make a very healthy surplus this year. We discussed various options and decided we should start to migrate our access points to the latest Ubiquiti units. Although it is possible to buy some examples of the "old" technology units distributers stocks are erratic as the "old" units are being phased out. The "new" units cannot be used to connect to the "old" access points. I.e. there will come a time in the future when a subscriber's antenna fails and we have to replace their "old" unit with a "new" unit and the replacement unit will only be useable if the access point has also been upgraded. Hence the need to plan for this now. **Action: Phil**

5.5   Outstanding subscribers' debt

The outstanding debt is £46.50. **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

7.1.1 Issues raised by Subscribers

7.1.1.1 Fernaig

In November 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 MikroTik router is reporting a suspected fault on one or more of the subscriber's units and their router had to be configured to temporarily force the offending units offline. This has now been diagnosed as a problem caused by a subscriber purchased and installed secondary access point. To reduce the impact of the fault we have temporarily changed the configuration of their router. We have also provided diagnostics and advice as to how the problem with their kit might be resolved. We are waiting for the subscriber to confirm they have made the suggested changes. **Action: Subscriber**

7.1.1.2 Achmore

No issues

7.1.1.3 The Glen

No issues

7.1.1.4 Braeintra

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

7.1.1.5 Craig

No issues

7.1.1.6 Ardaneaskan East

No issues

7.1.1.7 Ardaneaskan West

No issues

7.1.1.8 Leacanashie

No issues

7.1.1.9 North Strome

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

7.1.1.10 Strome Ferry

No issues

7.1.1.11 Ardnarff

No issues

7.1.2 Usage quotas

The monthly total for December was 8.4 TB. The daily average was 270 GB, with a peak usage of 433 GB (new record) on Monday 27th.

CMNet peaks since operations started; highest average daily usage 282 GB, highest single days usage - 433 GB, highest monthly usage - 8.5 TB.

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

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

7.1.4.2 Achmore

Once or twice every few months we are still seeing sporadic problems with the Achmore access point. The access point has already been replaced with another similar unit which did not resolve the problem. The current unit 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. No progress this month. **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

The new unit in North Strome has been working without any issues and once we have sufficient capacity available we will start subscriber installations. **Action: Phil**

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**

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**

7.1.5.3 Lochcarron

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

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

7.1.5.4 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 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**

There was a power cut on the 22nd December and due to the partial suspension of the automatic recovery routines the connection between the Achmore side and Strome side was lost. Strome side subscribers were automatically rerouted through Lochcarron and the connection between Achmore side and Strome side was re-established manually.

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**

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

Ardaneaskan - the whole house Wi-Fi installation has been successfully tested and the units are now live. **Completed**

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 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 and access points will be upgraded. **Action: Phil**
Re-align the existing Portchullin Access Point
Add an additional Portchullin Access Point
Install one subscriber's 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.

8.6.1.1 Ardaneaskan East

One installation is pending. **Action: Phil, Mary & Ken**
No further installations are waiting to be scheduled.

8.6.1.2 Strome Ferry

The new units are now performing satisfactorily however the addition of new subscribers will be limited until we can get additional capacity online. **Action: Mary, Phil, Neil**

8.6.1.3 Leacanashie

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

8.6.1.4 North Strome

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

8.6.1.5 Achmore

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

8.6.1.6 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

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)

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, more will follow in the coming months. **Action: All**

10 Next meeting

Date of next meeting Wednesday 9th February 19:30.
The meeting finished at 8:15 pm