Broadband Steering Group

Minutes of the Meeting held on the 8th January 2020 @ 7:30 p.m. Fernaig House

1 Present and Apologies

Present: Phil Game, Georgie Grimson, Joe Grimson, Mary MacBeth, Neil MacRae

2 Approve and adopt previous minutes

The previous minutes for November, were proposed by Georgie, 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

Most of the work on Creag Mhaol to prepare for the new subscribers is now complete. The weather was diabolical in December but even so most of the mains power cable has been buried. Two units remain to be swapped out and work continues adjusting the error reporting. We are now ready to set up a trial for the first subscriber on one of the new relays and once this has been tested we will start work on the relay in North Strome and a second trial subscriber installation. See section 8.3 for a detailed description of progress.

On Sunday 5th January three of the four radios powered from the MikroTik router on the Achmore High relay were reset to factory defaults. Two were recovered and we suspect the problems were caused by the third unit or its cable both will be replaced.

3.1 Bandwidth

Capacity is holding up well however there were some dips in performance on the 26th December see section 7.1.2 for more details. We will soon be ordering the new line through the Achmore exchange which should double our capacity and still allow us to keep Lochcarron in reserve. **Action: Phil**

3.2 Firmware / False RADAR

We are still seeing incidents of false RADAR detection on the "live" relays and continue to monitor the situation. We have also experienced some false RADAR reports on the new relays however these have been greatly reduced now the units have been tuned to make sure the frequencies do not overlap. Hopefully the testing of new subscriber installations will shed more light into what is causing the false RADAR problem. **Action Phil**

3.3 Server Problems

We have had several occasions when the server has spontaneously rebooted and also had problems with corrupt files. It appeared that these were due to corruption of the hard disk and so this has been scanned for errors and hopefully they have been resolved and the server will behave itself. **Action Phil**

3.4 New Backhaul Installation in Achmore Hall

3.4.1 Get quote for installation

Mary has completed the forms for the Highland Council and the Post Office. One of the conditions in being set up on the Post Office website is that the premises must have a post box. One has been ordered for the hall and it has been agreed with Martin that it will be fitted near to the notice board.

3.4.2 Install our cabinet and internal equipment in the hall

The cabinet has been assembled and is ready to install. Before it is fixed to the wall we will check with Martin to make sure it does not block access to any other equipment. **Action Phil**

Once we have the internal cabinet in place we will order the new line. **Action: Mary**

3.4.3 Install external equipment at the hall

3.4.4 Install new dish on CMAchmoreHigh for Plockton access

3.4.5 Switch connection from Plockton to CMAchmoreHigh

3.4.6 Install new dish on CMAchmoreLow for Achmore access

3.4.7 Get new line installed in the hall

3.4.8 Test the new line

3.4.9 Activate the new line

3.5 Subscribers

Live subscribers	- 44
Waiting for installations / activation	- 0
Waiting for subscriber's installation dates	- 0

3.5.1 Waiting for new backbone relays

Waiting for installations	- 31
Leavers since the last minutes	- 1
New joiners since the last minutes	- 0
Total	**- 76**

There have been no installations since the last minutes. However one installation has been taken over by a new subscriber.

We have had a request for a connection in Lochcarron; once our existing commitments have been met we will see if this is feasible.

The remaining installations are waiting on the completion of the new relays. See 8.3 for more details

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**

3.6 New MikroTik replacements for AirRouters

We will be using MikroTik routers for all the new subscribers' installations. **Action: Phil**

3.7 Terms of Reference

Deferred

4 Secretary's report

4.1 Risk register

No progress this month.

4.2 New Zen Contracts

Zen has reduced their tariff on condition we commit to a new full year contract. It was decided we would stay with Zen and opt for the reduced rate. Mary to contact Zen to commit for a further year at the reduced rate **Action: Mary**

4.3 New backhaul installation in Achmore hall

As soon as we have installed the internal cabinets and the Post Box we will place an order with Zen for a new line.

Action: Mary

4.4 Long term support plan

Software to automate the cloning of failed devices - work has restarted on this software in preparation for the use of MikroTik routers rather than AirRouters. **Action: Phil**

4.5 Terms of Reference

Deferred

5 Finance Director's Report

5.1 Monthly Statistics

Revenue for November:-
Brought forward

Balance			**£316.46**		
Creditors				£2,813.84	
Debtors				£1,826.50	
Net					£987.34
Bank balance					**£8,414.04**

This month

Income	£407.50			
Expenditure	£101.98			
P&L		**£305.52**		
Creditors			£5.00	
Debtors			£735.40	
Net				-£730.40
Adjusted P&L				**-£424.88**

Carried forward

Balance		**£621.98**		
Creditors			£2,818.84	
Debtors			£2,561.90	
Net				£256.94
Bank balance				**£7,989.16**

Liabilities

Estimated Liabilities	-	£256.94
Estimated balance after liabilities	-	£7,732.22

Provision for replacement of Electronic equipment

Total value purchased to date	-	£16,843.29
Balance after provision	-	£-9,111.07

Revenue for December:-
Brought forward

Balance		**£621.98**		
Creditors			£2,818.84	
Debtors			£2,561.90	
Net				£256.94
Bank balance				**£7,989.16**

This month

Income	£372.50			
Expenditure	£367.63			
P&L		**£4.87**		
Creditors			£5.00	
Debtors			£182.90	
Net				-£177.90
Adjusted P&L				**-£173.03**

Carried forward

Balance		**£626.85**		
Creditors			£2,823.84	
Debtors			£2,744.80	
Net				£79.04
Bank balance				**£7,816.13**

Liabilities

Estimated Liabilities	-	£79.04
Estimated balance after liabilities	-	£7,737.09

Provision for replacement of Electronic equipment

Total value purchased to date	-	£16,843.29
Balance after provision	-	£-9,106.20

Please note: in December we paid an estimated electricity bill for £265.65. This bill was considerably higher than the actual amount due and we are expecting a refund or credit now that we have submitted a meter reading.

Phil will amend the finance spreadsheet so that estimated charges are shown separately from amounts credited by suppliers (e.g. overpaid electricity bills). **Action: Phil**

5.2   Next year's tariff

The total number of gigabytes sold was 8,150. The break even tariff for 2 fibre lines is 80 GB per £1, and for 3 fibre lines is 53 GB per £1.

5.3   Outstanding subscribers' debt

Excluding subscribers with quota increases there is one account in arrears.

5.4   Housekeeping

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

5.5   Payments for installations of subscriber's equipment

All payments are up to date.

5.6   Standing orders

All subscribers' accounts are correct.

5.7   Subscriber's subscription rebates

Two more refund cheques were signed and are ready to be sent out. This completes the refunds for the year ending August 2019. **Action: Phil, Mary, Joe, Georgie & Neil**

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   Problems and complaints

November:-

The new Strome relays were powered up from the mains for the first time on the 1st. This is the prelude to full scale testing and integration with the live CMNet system.

There was a power failure on the 9th lasting approx. 22 minutes, on restoration of the power all units came back on line.

One customer had his AirGateway reset to the factory settings. A new unit was cloned and his system returned to normal.

Between the 17th and 19th the system logs showed that customers in Achmore were having difficulty logging into the access point on the hill. It was first thought that the problem was due to False Radar incidents but this proved not to be the case. It was decided to change the access point at the next available opportunity.

A power supply failed on one customers NanoBeam, a new power supply was fitted and his system returned to normal.

On the 27th the anti-virus programme on the server was warning of an attack on the remote access software, this was updated to the latest version and the server restarted.

One customer has left CMNet.

December:-

On the 4th of December the Achmore access point was indicating a False Radar Detection resulting in a loss of service to Achmore customers. The unit was rebooted and all customers reconnected. This was the prelude to a number of FRD's on the system as a whole over the course of the month.

On the 10th at 1252 there was a power cut affecting the whole of the area. Power was fully restored at 1326 and all subscribers went back on line without any issues.

One customer has left the area and one has joined the system taking over the same installation.

7.1.2　Usage quotas

The monthly total for November was 3.3 TB. The daily average was 110 GB; with a peak usage of 168 GB on Friday 15th.

In November one customer exceeded their quota and had their quota increased. **Action: Phil**

The monthly total for December was 3.45 TB. The daily average was 111 GB; with a peak usage of 230.8 GB on Thursday 26th. This is the highest daily total since CMNet started.

CMNet peaks since operations started; highest daily usage - 230.8 GB, highest monthly usage - 3.63 GB.

Three customers have exceeded their quotas for December and have had their quota increased. **Action: Phil**

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　Installation of equipment

No new installations since the last minutes.

7.1.4.1　Ardaneaskan

The LoS (line of sight) from the raised beach is to be confirmed however the LoS from Creag Mhaol has now been confirmed. **Action: Phil**

7.1.4.2　Craig

We will review the situation when we have more experience of low level links over water or other options become available. **Action: Phil**

7.1.4.3　Achmore

The Achmore Access Point is reporting problems and will be replaced on the next trip to Creag Mhaol. **Action: Phil**

7.1.4.4　North Strome

The last potential subscriber has confirmed that they have line of sight to the new Strome Low relay. **Completed**

7.1.4.5　Braeintra

The Braeintra Access Point has failed and will be replaced as soon as weather permits. **Action: Phil**

7.1.4.6　Other installations

Some small tasks are outstanding on the Creag Mhaol relays. **Action: Phil**

7.1.5　Customer Contracts

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

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 different types of equipment - this program is being rewritten so it can be used to check configurations regardless of the manufacturer and simplify the process to replace faulty units **Action: Phil**

7.2.2　Potential personal safety issue

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

7.2.3　Additional equipment for subscribers

No requests outstanding.

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

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

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

8.2.1.1   Equipment and tidy up

The new dishes have arrived and will be configured and installed when traffic can be switched away from Plockton. **Action: Phil**

8.3   Backbone development

8.3.1   Plockton

No issues.

8.3.2   Lochcarron

No issues.

8.3.3   Creag Mhaol

8.3.3.1   Existing relays

8.3.3.1.1   Braeintra AP

The upgrade to the Achmore High & Achmore Low relays has improved the performance for subscribers in Braeintra. However we will continue to monitor the performance of the link as false RADAR incidents are still causing problems. **Action: Phil, Joe**

In the past few days the unit has failed and will be replaced as soon as the weather permits. **Action: Phil, Mary, Joe**

8.3.3.1.2   Achmore High to Achmore Low link

The new units are performing well with no problems. **Completed**

8.3.3.2   New relays

The Strome Low relay dish that links to Achmore High has been replaced with a smaller unit.

The remainder of the links between the new relays have been tuned are operating at good signal strengths

The new relay automated recovery algorithms have been tested as far as is possible without subscriber connections.

The Portchullin raised beach dish was reset to factory defaults and had to be reconfigured - it is thought this was probably caused by the recent power cuts.

The Portchullin raised beach dish that point to Creag Mhaol has been re-aligned

Valuable time was wasted replacing 700 metres of marker posts that had been removed

Most of the mains power cables have been buried.

8.3.3.2.1   Next steps

The Achmore High relay dish that links to Strome Low needs to be replaced with a smaller unit to reduce the signal strength.

The new relay automated recovery algorithms are now ready to test with subscriber installations

Re-align the existing Portchullin Access Point

Add an additional Portchullin Access Point

Install one subscriber's test equipment in Ardnarff

Install one subscriber's test equipment in Portchullin

Install the Strome Ferry relay in North Strome

Install one subscriber's equipment in Ardaneaskan East

Install one subscriber's test equipment in North Strome

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

Action: Phil, Mary, Joe, Georgie, Neil

8.3.4   The Glen

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

8.3.5   Ardaneaskan

We are now ready to set up one subscriber's connection as a test. **Action: Phil, Joe, Mary**

8.3.6 Leacanashie

The Leacanashie access point is under test. **Action: Phil**

8.3.7 Portchullin (raised beach)

The Portchullin access point is under test. **Action: Phil**

8.3.8 Craig

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

8.3.9 North Strome

We are now ready to set up the North Strome link. **Action: Phil, Joe, Mary**

We are now ready to set up one subscriber's connection as a test. **Action: Phil, Joe, Mary**

8.3.10 Strome Ferry

The activation of the Strome Ferry access point is waiting on the installation of the North Strome link. **Action: Phil**

8.3.11 Ardnarff

We are now ready to set up one subscriber's connection as a test. **Action: Phil, Joe, Mary**

8.3.12 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

The subscriber usage email will be enhanced to give the specific amount of data used to allow subscribers to better manage their quotas. No progress this month. **Action: Phil**

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

8.6.1 ADSL Broadband installation at Plockton High School

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

8.6.2 ADSL Broadband installation at Lochcarron

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

8.6.3 ADSL Broadband installation at Achmore

As soon as we have completed the internal installation and set up a Post Box we can order the new line. **Action: Mary, Joe, Phil**

8.7 Implementations

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

Testing of the kit on Creag Mhaol is complete and we are now ready to trial subscriber connections. **Action: Phil**

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

We will organise another training session for all directors

10 Next meeting

Date of next meeting Wednesday 12th February
The meeting closed at 8:45 pm