Broadband Steering Group

Minutes of the Meeting held by email during the week starting 14th September 2020

1 Present and Apologies

Contributions from: Phil Game, Mary MacBeth, Neil MacRae, Kath Smith

2 Approve and adopt previous minutes

The previous minutes for July, were proposed by Kath, seconded by Mary
Copies of previous minutes are on our website at:-

   http://www.stromeferry-and-achmore.co.uk/index.asp?pageid=433827

3 Chairman's report

Now the COVID -19 restrictions have been eased and we have had some dry weather we have made good progress. The Achmore line is operational, the storm damage on Creag Mhaol has been repaired and the leaking cabinet on the Portchullin raised beach has been replaced. We have test sites set up in Ardaneaskan, Ardnarff and North Strome and the North Strome relay for Strome Ferry has been installed and is under test.

3.1 Bandwidth

A visit to Plockton High School has shown that the reduction of capacity has been caused by a tree blocking the line of sight and therefore the signal to our dish on Creag Mhaol. We will move the dish on Creag Mhaol and are waiting on permission from the school to move the dish at the school to restore the line of sight. **Action: Highland Council**

3.2 False RADAR

We continue to gather more information about the events and "tune" the units. **Action: Phil**

3.3 New Backhaul Installation in Achmore Hall

3.3.1 Get new line installed in the hall

Finally we have taken delivery of the new Plusnet line in Achmore hall. It was delivered just in time as the capacity of the Plockton line had deteriorated to such an extent it was starting to have a severe impact on performance. **Completed**

3.3.2 Test the new line

The new line in Achmore Hall is delivering download speeds of 78 Mbps and upload speeds of 20 Mbps. The new "ac" dishes that link to Creag Mhaol have been tested at a maximum throughput of 80 Mbps upload and 80 Mbps download. **Completed**

3.3.3 Install external equipment at the hall

Completed

3.3.4 Install new dish on CMAchmoreLow for Achmore access

Completed

3.3.5 Activate the new line

Completed

3.3.6 Install new dish on CMAchmoreHigh for Plockton access

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

3.3.7 Install new at dish at Plockton High School for CMAchmoreHigh access

Waiting on permission from the school **Action: Highland Council**

3.4 Subscribers

Live subscribers	- 42
Waiting for installations / activation	- 3
Waiting for subscriber's installation dates	- 1

3.4.1 Waiting for new backbone relays

Waiting for installations	- 28
Leavers since the last minutes	- 1
New joiners since the last minutes	- 0
Total	**- 74**

There have been three installations since the last minutes; all three locations are testing new access points and relays.

We have had a request for a connection in Lochcarron and another in Strathcarron; once our existing commitments have been met we will see if this is feasible. **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 7.6.

3.5   New MikroTik replacements for AirRouters

Our software is now being used to automatically configure subscriber's routers and antenna. It is being enhanced to check the configuration of subscriber's access points. **Action: Phil**

3.6   Terms of Reference

Deferred

4   Secretary's report

4.1   Risk register

No progress this month.

4.2   Long term support plan

Software to automate the cloning of failed devices - this software is being tested. **Action: Phil**

4.3   Access to the bank account

Finally, after months of struggle, and nothing but obstruction from RBS we have received confirmation that Kath has now been set up with online banking access. **Completed**

4.4   Terms of Reference

Deferred

5   Finance Director's Report

5.1   Monthly Statistics

In the past few days we have managed to get online access to our bank account. Kath has done an incredible job to reconcile the bank statements income and expenditure. However there is more work to do regarding outstanding claims, repayments due from Zen and new payments due to Plusnet. It will take some time to work our way through the five month backlog so rather than publish monthly accounts that we know we have to revise here is a brief summary of the current status.

Brought forward from March   £822.12
Carried forward from August   £1,849.70
Unpaid claims estimate   ~ £2,500.00

Individual month's accounts will be published in future minutes.

5.2   Next year's tariff

The total number of gigabytes sold was 8,900. The break even tariff for 2 fibre lines is 104 GB per £1, for 3 fibre lines is 70 GB per £1 and for 4 fibre lines is 52 GB per £1.

5.3   Outstanding subscribers' debt

The outstanding debt is £65.

5.4   Housekeeping

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

5.5   Payments for installations of subscriber's equipment

No report possible this month.

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

The radio on Achmore High that links to Strome Low or its Ethernet cable was damaged and both have been replaced. **Completed**

Drop outs in Braeintra. We replaced the subscriber's AirRouter with a MikroTik but it appears that the cause of the problems was probably the poor performance of the Plockton link. Since we switched to the new Achmore line there has only been one incident. We will close this report if no other incidents are reported. **Action: Subscriber**

One subscriber reported drop outs in Craig. We have switched the Craig access point to a different channel and this has improved the situation but not completely eliminated false RADAR incidents which appear to be the cause. We will continue to monitor the link. **Action: Phil**

There are still a few Ubiquiti units to upgrade to the new version of firmware this will be scheduled in due course. **Action: Phil**

On Sunday / Monday 13th & 14th September there was heavy rain and high winds which caused some disruption to the system At least one of the radios decided to jump frequencies because of a false RADAR event and picked another frequency that was in use thus causing a conflict. It will take a little while to check everything has returned to normal. Additional wire stays are being prepared which will stabilise relays in high winds. **Action: Phil**

7.1.2   Usage quotas

The monthly total for July was 4.7 TB. The daily average was 152 GB, with a peak usage of 234 GB on Friday 3rd.

The monthly total for August was 4.4 TB. The daily average was 143 GB; with a peak usage of 279 GB on Wednesday 5th, a new record high.

CMNet peaks since operations started; highest daily usage - 279 GB, highest monthly usage - 5.1 TB.

No subscribers exceeded their quota in July.

In August one subscriber requested a quota increase, one subscriber exceeded their quota both have had their quotas 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

Now the COVID-19 restrictions have been lifted we have restarted installations. **Action: All**

7.1.4.1   *Achmore*

The access point is showing intermittent faults, we will investigate this further when time permits. **Action: Phil**

7.1.4.2   *Ardaneaskan*

One subscriber's connection is under test. **Action: Phil**

7.1.4.3   *Ardnarff*

One subscriber's connection is under test. **Action: Phil**

7.1.4.4   *Braeintra*

There has been only one incident of a drop out reported since the new line was installed in Achmore, if there are no more incidents this item will be closed. **Action: Subscriber, Phil**

7.1.4.5   *Craig*

We are investigating a report of drop outs. **Action: Phil**

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   *North Strome*

The installation of the trial site is complete and initial tests show that some tuning of access points is required. **Action: Phil**

7.1.4.7   *Other installations*

The high relay above Strome Ferry has been repaired, new radios have been configured and fitted and all are working well and are ready to be tested. **Action: Phil**

7.1.5   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 - it is being tested on subscribers' access points. **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

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**

7.6 Revised Terms and Conditions

A proposed set of terms and conditions for new installations was circulated and the key points agreed. However there is a little more work to do on the exact wording before it is published. The new terms and condition will apply to all new installations, other than those who have agreed to be test sites.

7.7 Whole House Wi-Fi

There was some debate about whether we should provide an option for "whole house Wi-Fi" and it was decided that we should have a limited set of options available which can be tailored subscribers needs. We propose a rental solution, rather like the existing CMNet kit. There will be options for different hardware and monthly rental charges will be based on the type and number of devices installed.

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

A tree is blocking the signal and the dishes will need to be moved to avoid the obstruction. The new dishes will be configured and installed as soon as the highland council gives permission. **Action: Highland Council**

8.2.2 Achmore

The Plusnet router will be replaced with something more suitable. **Action: Phil**

8.2.3 Other relays

No issues.

8.3 Backbone development

8.3.1 New relays

8.3.1.1 Completed

The Achmore High relay dish that links to Strome Low has been replaced to reduce the signal strength.
The Strome High relay has been repaired and the damaged radios replaced.
The leaking Portchullin raised beach enclosure has been replaced.
One subscriber's test equipment has been installed in Ardnarff
The Strome Ferry relay in North Strome has been installed
One subscriber's test equipment has been installed in North Strome
One subscriber's test equipment has been installed in Ardaneaskan East

8.3.1.2 Next steps

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
The buried mains power cables need to be permanently marked and documented.
Install one subscriber's test equipment in Portchullin
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

One subscriber's connection is under test. **Action: Phil**

8.3.4 Leacanashie

We will schedule an installation once the Ardaneaskan test site has been installed. **Action: Phil**

8.3.5 Portchullin (raised beach)

The Portchullin enclosure has been replaced. **Completed**

8.3.6 Craig

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

8.3.7 North Strome

The North Strome link for Strome Ferry is under test. **Action: Phil**

One subscriber's connection is under test. **Action: Phil**

8.3.8 Strome Ferry

We are ready to install the Strome Ferry test site. **Action: Phil**

8.3.9 Ardnarff

One subscriber's connection is under test. **Action: Phil**

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

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

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.

We are testing trial sites and will start the remainder of subscriber installations as soon as the trials are complete. **Action: All**

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 14th October 7:30 at Fernaig House COVID permitting.
The meeting was held by email exchange during the week starting the 14th September