Broadband Steering Group

Minutes of the Meeting held by email exchanges in the week starting the 11th May 2020

1 Present and Apologies

Contributing by email: Phil Game, Mary MacBeth, Neil MacRae, Kath Smith, Sue Waddell

2 Approve and adopt previous minutes

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

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

3 Appointment of new directors

Phil welcomed Sue Waddell & Kath Smith to the board.

4 Chairman's report

COVID-19 - We are able to make progress in areas that do not breach the government's guidelines but for the moment new subscribers' installations are on hold. Our priority will be to support the current subscribers, and to develop infrastructure and software.

4.1 Bandwidth

The Plockton line is still operating very close to full capacity; at times showing periods where peak downloads exceed 75 Mbps. For a brief period on the 3rd May one of our software "traps" flagged that the upload in Plockton had exceeded 15 Mbps for 5 minutes and it was therefore "time to order more capacity". This is the first time we have triggered this capacity warning message, the upload capacity of the line is 20 Mbps. We have left the download speed unchanged at 20 Mbps, down from the normal 30 Mbps and the upload speed remains at 15 Mbps. Speeds will be reviewed as soon as we take delivery of the new line from Zen.

Openreach have told Zen that it is not possible to install fibre in the hall. We have spoken to Zen who has confirmed this is rubbish and we are now waiting on Zen to get Openreach to complete the installation - see 4.4.1 for more details. When the new line is installed we will complete the infrastructure changes to bring the additional capacity online.

So far it has not been necessary to bring the Lochcarron backup line into service to give us extra capacity.

4.2 False RADAR

There were no events on the Braeintra or The Glen South access points in April (there had been a few in March).

For a period of 10 minutes we had a series of events on the Achmore access point on the 10th April - aside from this there were no other events on this unit for the rest of April.

The unit on Creag Mhaol that links the Achmore side relays to the Stromeferry side relays is the worst offender with an event pretty much every day. However this unit is not used by any subscribers at the moment and so there is no urgency for a fix. The offending unit is the old dish that was used to connect Creag Mhaol to Lochcarron which was temporarily switched to link to the new relays on the Strome Ferry side of Creag Mhaol. I.e. it was designed for a link of 7.2 km but is now being used for a link of 0.3 km. It is way too sensitive (1,000,000,000 times to powerful) for the length of the new link. This is almost certainly contributing to the problem. The unit has been scheduled to be replaced with something more appropriate (less sensitive).

The link to Stromeferry (via North Strome) continues to suffer from intermittent problems - the incidents have been reduced but it is too soon to say whether the problem on this link has been eliminated by the most recent changes.

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

4.3 Server Problems

There have been no more incidents of the server rebooting since the last report. However when time permits we will clear down the server hard disk and run a disk analysis and repair. **Action Phil**

4.4 New Backhaul Installation in Achmore Hall

4.4.1 Get new line installed in the hall

On the 28th April Zen emailed to say our new line in the hall would be activated on the 29th April. We tested the line remotely late on the 29th but could not access our router. On the 30th we visited the hall to check everything was powered up (which it was) and ran diagnostics on the Openreach connection. The diagnostics were sent to Zen. Zen replied on the 4th May to say that they had been informed by Openreach that it is not possible to provide fibre services as the hall line is "exchange only". Therefore Zen has had to **cancel this part of the order**!

Mary has contacted Zen sales who will contact Openreach to resolve this issue. This line was ordered on the 27th February since then **eleven weeks** have passed whilst we wait for Openreach. We will chase Zen for an update. **Action Mary**

4.4.2 Test the new line

If only we could!

4.4.3   Install external equipment at the hall

We will endeavour to minimise disruption to existing subscribers when we bring the new capacity online. **Action Phil**

4.4.4   Install new dish on CMAchmoreHigh for Plockton access

4.4.5   Switch connection from Plockton to CMAchmoreHigh

4.4.6   Install new dish on CMAchmoreLow for Achmore access

4.4.7   Activate the new line

4.5   Subscribers

Live subscribers	- 43
Waiting for installations / activation	- 0
Waiting for subscriber's installation dates	- 0

4.5.1   Waiting for new backbone relays

Waiting for installations	- 31
Leavers since the last minutes	- 1
New joiners since the last minutes	- 0
Total	**- 75**

There have been no installations since the last minutes.

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 COVID-19 restrictions being lifted and the completion of the testing of the new relays. See 9.3 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**

4.5.2   Contracts and tariffs

CMNet has being installing and connecting subscribers for over five years. During this period we have followed a different path from other service providers. We trusted our potential subscribers to honour their commitment to CMNet and so did not insist that contracts be signed or payment be made before connections were activated. This has served CMNet and its subscribers well for 48 installations but the commitment made by subscriber 49 has not been honoured.

Subscriber 49 was a transfer of service from a subscriber who left the area. Our policy is to allow the leaving subscriber to terminate their contract early without penalty if the incoming subscriber commits to join CMNet. The new subscriber did commit to join CMNet and so the old subscriber was released from their contract which had 9 months to run and £121 outstanding (which they were willing to honour if the new occupant did not want to join CMNet).

The new subscriber was connected without charge and used the system for 11 days at which point they informed us that they wanted to leave CMNet as they now had a landline connection to the new fibre cabinet. They were reminded of the commitment they had made to sign up for 12 months and that the previous subscriber had been released from their contract because of that commitment.

Their response has been to offer to pay for any reasonable cost incurred whilst using the system for 11 days. They state it is their right to cancel without penalty due to a 14 day cooling off period and that they had not signed a contract with CMNet.

We cannot afford the risk of subscribers not honouring commitments and so unfortunately we will have to make changes to our procedures. We will work out the details when COVID-19 restrictions are lifted and it is possible to get all the directors together.

There are a number of installations that we were about to start before the COVID-19 restrictions were imposed. These include the trial sites in Ardnarff, North Strome and Ardaneaskan. These will proceed under our current terms and conditions as soon as the COVID-19 restrictions are lifted.

4.6   New MikroTik replacements for AirRouters

A "standard configuration" MikroTik router is under test. **Action: Phil**

4.7   Terms of Reference

Deferred

5   Secretary's report

5.1   Risk register

No progress this month.

5.2 Long term support plan

Software to automate the cloning of failed devices - the hardware specific parameters in the MikroTik backups have been identified and our software updated to create non hardware specific copies of units. The new software version has successfully been used to configure subscribers' MikroTik routers. However there is still an issue to resolve when newly configured units have their security identifiers checked, it appears this is either a problem with the software that checks the security identifiers or possibly a timing issue. The problem is easily resolved by running the security check a second time so if the source of the problem cannot found there is a simple way to get around the problem. **Action: Phil**

5.3 Terms of Reference

Deferred

6 Finance Director's Report

6.1 Monthly Statistics

Revenue for April:-

When Joe resigned with immediate effect last month we lost access to the bank account. Although Sue's details have been sent through to RBS they have not yet been actioned. So for the moment we do not have access to the bank account and therefore cannot produce figures for April.

6.2 Next year's tariff

The total number of gigabytes sold was 8,500. The break even tariff for 2 fibre lines is 100 GB per £1, for 3 fibre lines is 67 GB per £1 and for 4 fibre lines is 50 GB per £1.

6.3 Outstanding subscribers' debt

No report possible this month.

6.4 Housekeeping

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

6.5 Payments for installations of subscriber's equipment

No report possible this month.

6.6 Annual Accounts

The returns for Companies House and HMRC and the return to the CIC regulator were approved by all the directors in post in August 2019 and all returns have been submitted. The final accounts will be uploaded to the website. **Action: Phil**

Our profit chargeable to Corporation tax was £1,307 making the tax bill for the year £248.33. Mary has paid the tax due and will reclaim the amount in due course. **Completed**

7 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**

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

No progress this month.

7.2 Liabilities

No progress this month.

7.3 Description of the Audit Trail

No progress this month.

8 Customer Relations

8.1 Production Environment

8.1.1 Problems and complaints

One subscriber reported poor speeds and no internet connection. This was traced to the known intermittent fault where the Achmore access point goes "deaf" and does "hear" connections from subscribers' antenna. The unit was rebooted which fixed the problem. So far we have not managed to find any resolution to this problem so it was decided to code a software "trap" to detect the problem. This was implemented in two phases; the first to identify the problem and email a warning - this was tested successfully by the event; the second is to automatically reboot the unit should the fault occur again. Since implementing this solution Ubiquiti have released a new version of firmware which may fix the problem. The new firmware will be tested and applied in due course. **Action: Phil**

8.1.2 Usage quotas

The monthly total for April was 4.6 TB. The daily average was 153 GB, with a peak usage of 220 GB on Wednesday 29th. CMNet peaks since operations started; highest daily usage - 274.5 GB, highest monthly usage - 5.1 TB.

Three subscribers have exceeded their quota and have had their quotas increased. **Action: Phil**

8.1.3 Possible virus infection

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

8.1.4 Installation of equipment

All subscriber installations have been suspended pending the lifting of COVID-19 restrictions.

8.1.4.1 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**

8.1.4.2 Craig

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

8.1.4.3 Achmore

It is suspected that there may be an issue with the Ethernet cable connection. This will be replaced at the first opportunity. No progress this month.

8.1.4.4 North Strome

No progress this month.

8.1.4.5 Braeintra

No problems.

8.1.4.6 Other installations

Some small tasks are outstanding on the Creag Mhaol relays. No progress this month. **Action: Phil**

8.1.5 Customer Contracts

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

8.2 Changes for next month

8.2.1 Additional Management tools / reports

Management Reporting Software upgrades. No progress this month. **Action: Phil**

Software to check the configuration of equipment - a new version of this software is under test. **Action: Phil**

8.2.2 Potential personal safety issue

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

8.2.3 Additional equipment for subscribers

No requests outstanding.

8.3 Volume trial

8.3.1 Review of the trial

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

8.4 Terms of Reference

Deferred

8.5 Problem reporting procedure

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

9 General topics

9.1 Documentation

9.1.1 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**

9.2 Existing Relays

9.2.1 Plockton

9.2.1.1 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**

9.3 Backbone development

9.3.1 Plockton

No issues.

9.3.2 Lochcarron

No issues.

9.3.3 Creag Mhaol

9.3.3.1 Existing relays

No issues.

9.3.3.2 New relays

No progress since the last report.

9.3.3.2.1 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

Replace the leaking Portchullin raised beach enclosure

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.

There is a reported short circuit on the power supply to the Portchullin backup access point which needs investigation. **Action: Phil, Mary, Neil**

9.3.4 The Glen

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

9.3.5 Ardaneaskan

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

9.3.6 Leacanashie

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

9.3.7 Portchullin (raised beach)

The Portchullin enclosure will be replaced at the first opportunity. No progress this month. **Action: Phil**

9.3.8 Craig

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

9.3.9 North Strome

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

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

9.3.10 Strome Ferry

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

9.3.11 Ardnarff

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

9.3.12 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**

9.4 Testing

9.4.1 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**

9.5   Restoring power to the old TV repeater

9.5.1   Removal of old cable

No progress this month.

9.5.2   Protection of cable on the hill

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

9.5.3   Backup Generator

No progress this month.

9.6   ISPs

9.6.1   ADSL Broadband installation at Plockton High School

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

9.6.2   ADSL Broadband installation at Lochcarron

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

9.6.3   ADSL Broadband installation at Achmore

We are waiting for the broadband connection to be configured. **Action: Openreach**

9.7   Implementations

9.7.1   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**

9.8   Company Logo

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

9.9   General Data Protection Regulation (Data Protection Act)

Nothing to report this month

10 Director's training session

10.1 Configuring Ubiquiti and MikroTik equipment

We will organise another training session for all directors

11 Next meeting

Date of next meeting Wednesday 10th June
The minutes were created from email exchanges during the week starting 11th May