DRAFT Broadband Steering Group DRAFT

Minutes of the Meeting held by Microsoft Teams video call on the 19th August 2021 @ 7:30 pm

1   Present and Apologies

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

2   Approve and adopt previous minutes

The previous minutes for July, were proposed by Neil, seconded by Kath

Copies of previous minutes are on our website at:-

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

3   Chairman's report

3.1   Bandwidth

Mary is investigating options in Lochcarron, the police service are escalating our request internally. So far the response has been "less than positive". The key issue for any new site is the distance from the exchange. The capacity of the copper wires reduces rapidly as the distance increases. E.g. with perfect cables and joints, which are very rare, the speed at just 500 metres from the exchange / cabinet is already down to 75% of the theoretical maximum. Mary will see if there is another building close to the exchange that would host our internet gateway. **Action Mary**

As it seems increasing likely we will not be able to find a suitable site in Lochcarron we will investigate what is required to add another line in Achmore. The first step will be to upgrade the router in Achmore Hall and see what speeds can be obtained through the link to Creag Mhaol. **Action: Phil**

3.2   False RADAR

False RADAR events continue to occur in fits and spurts nothing for weeks and then several events within a period of a few days. We will investigate running our new software automatically at a set time and using it to reset any units that have changed frequency. **Action: Phil**

3.3   Subscribers

Live subscribers	- 53
Waiting for installations / activation	- 0
Waiting for subscriber's confirmation of details	- 0
Pending installations	- 2
Waiting for installations	- 16
Leavers since the last minutes	- 0
New joiners since the last minutes	- 0
Total	**- 71**

We have had requests for connections in Lochcarron, Strathcarron, North Strome and Leacanashie; 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

Software to automate the cloning of failed devices - work has restarted to further automate the process and it is being tested and used on the kit being prepared for the new installations. **Action: Phil**

4.3   Access to the bank account

Mary has obtained the forms required to register her as a bank signatory; this requires that all directors formally approve a resolution to appoint Mary. As the exact wording of the resolution is key it will be done through an email meeting. No progress this month. **Action: All**

4.4   Electricity account

Mary has chased SSE to resolve the problems with their website. SSE have also failed to register the correct tariff against our account and subsequently charged us the wrong amount. Mary will chase SSE again. **Action: Mary**

5 Finance Director's Report

5.1 Monthly Statistics

Revenue for July:-

Brought forward				
Balance		**£1,625.53**		
Creditors			£7,029.23	
Debtors			£5,054.33	
Net				£1,974.90
Bank balance				**£10,878.51**
This month				
Income	£477.50			
Expenditure	£117.58			
P&L		**£359.92**		
Creditors			£181.00	
Debtors			£7.50	
Net				£173.50
Adjusted P&L				**£533.42**
Carried forward				
Balance		**£1,985.45**		
Creditors			£7,210.23	
Debtors			£5,061.83	
Net				£2,148.40
Bank balance				**£11,411.93**

5.2 This year's surplus

We have purchased two new LiteAP AC access points and 4 LiteBeam AC units to use as subscriber's antenna. See section 7.1.3.8 for more details on their performance. We have purchased three new plastic enclosures, two will be used in the very near future to replace units that are close to failing and the third will be held as a spare for emergencies.

All existing eligible subscribers have been sent details of the new tariff. Subscribers were asked if they wanted to take advantage of the new lower rates to increase their quotas and if not to alter their subscription payments from the 1st September.

All existing eligible subscribers will have their accounts credited on the 31st August if the following criteria are met:-
1) They must be members of CMNet on the 31st August 2021.
2) If they have paid the full New Joiner's Premium (NJP) of £96 their account will be credited with £36.
3) If they have paid over £60 of the NJP the excess over £60 will be credited.
4) Refunds will only be paid if subscriber's monthly subscriptions are correct.
5) If subscribers' accounts are not in balance the payment will be adjusted as required.
6) Refunds will be paid by cheque.
7) We will start to issue cheques after the September meeting; the process may take several weeks to complete.
8) If subscribers serve notice to leave CMNet before 31st August 2022 their rebate will have to be repaid in full.

5.3 Review of replacement equipment costs.

So far the new "AC" units appear to be working very well.

5.4 Outstanding Expenses Claims

All expense claims are up to date.

5.5 Next year's tariff

The total number of gigabytes sold was 11,200. The break even tariff for 3 fibre lines is 100 GB per £1 and for 4 fibre lines 81 GB per £1.

5.6 Outstanding subscribers' debt

The total outstanding debt is £6.

5.7 Housekeeping

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

5.8 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 are still recording a few drop outs due to false RADAR. **Action: Phil**

We continue to hold the Lochcarron gateway in reserve should there be a need to increase capacity.

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**

7.1.1 Usage quotas

The monthly total for July was 5.8 TB. The daily average was 188 GB, with a peak usage of 331 GB on Tuesday 27th.

CMNet peaks since operations started; highest average daily usage 229 GB, highest single days usage - 367 GB, highest monthly usage - 7.1 TB.

Two subscribers exceeded their quotas in July 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

The Braeintra access point went offline on the 8th August and was brought back online on the 10th. The fault was caused by corrosion on the RJ45 plug and socket of the MikroTik router. The terminals were cleaned and coated with dielectric grease which hopefully will prevent further corrosion. This failure demonstrates the weakness of the current Achmore side relays which unlike the Strome side relays do not have the advantage of backup devices installed ready to bring into service. We will configure and install backup units 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

The North Strome installation has been completed. **Completed**

7.1.3.8 Strome Ferry

The North Strome relay supplying Strome Ferry is under test using a new access point. **Action: Phil**

The initial Strome Ferry trial site installation has been completed. **Completed**

A new low level test site has been installed in Strome Ferry. Initial results showed a marked drop in throughput due to interference from tides, subsequently the access point was upgraded to one of the new AC units. Although the unit is showing interference from the tides its connection speed is so high we can still maintain service levels. Further testing will involve increasing the height of the subscriber's antenna to test the effect on tidal interference and replacing the access point with a unit with a wider beam pattern. **Action: Phil, Mary & Neil**

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 requested a scan / trial.

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

After a few weeks have elapsed we will check the installation and apply a second coat of paint to the school wall, looks like we missed the summer break. **Action: Phil & Mary**

8.2.2 Achmore

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

Nothing to report

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

The subscriber usage email will be enhanced to give the specific amount of data used to allow subscribers to better manage their quotas. In the light of the quota increment changing from 50 GB to 75 GB it was decided this request should be dropped. **Completed**

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

Two more installations have been completed.
Equipment has been configured for two more installations which are pending. **Action: Phil, Mary & Ken**

No further installations are waiting to be scheduled.

8.7.1.2 *Strome Ferry*

We are experiencing some drop in throughput due to the tides. We are testing alternative equipment to determine the best combinations before commencing the full roll out of installations. **Action: Phil, Neil**

8.7.1.3 *Leacanashie*

One installation has been completed.

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

8.7.1.4 *North Strome*

Three installations have been completed.

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 *Braeintra*

One installation has been completed.

No further installations are waiting to be scheduled.

8.7.1.7 *Portchullin*

Installations pending Portchullin raised beach enclosure test / replacement. **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 *Lochcarron*

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*

We will organise another training session for all directors

10 Next meeting

Date of next meeting Wednesday 15th September 19:30 hopefully this will be face to face so we can start the cheque signing process.

The meeting was held by Microsoft Teams video conference and finished at 20:10