

# Broadband Steering Group

Minutes of the Meeting held by Microsoft Teams video call on the 14<sup>th</sup> April 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 March, 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

### 3.1 COVID

It looks like 17<sup>th</sup> May will be the key date when four people from two households can meet indoors. If that date holds then we will be able to restart installations soon after.

### 3.2 Bandwidth

Plockton continues to perform well with spare capacity available however we are still experiencing poor performance through the Achmore gateway see 7.1.

### 3.3 False RADAR

False RADAR events mostly on the Creag Mhaol link to North Strome & Strome Ferry persist. As well as disabling the overnight automatic reset we have amended our software to automatically create a dataset of events rather than accumulating data manually. Over time this will generate a better picture of the frequency "hops". **Action: Phil**

### 3.4 Subscribers

Live subscribers	- 42
Waiting for installations / activation	- 3
Waiting for subscriber's confirmation of details	- 0
Pending installations	- 9
3.4.1 <a href="#">Waiting for new backbone relays</a>	
Waiting for installations	- 19
Leavers since the last minutes	- 0
New joiners since the last minutes	- 0
Leavers since the last minutes	- 0
New joiners since the last minutes	- 0
<b>Total</b>	<b>- 73</b>

We have had requests for connections in Lochcarron, Strathcarron and North Strome; once our existing commitments have been met we will see if these are 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**

There are twelve subscribers whose connections to CMNet will be progressed as soon as COVID restrictions are lifted.

One subscriber has left the area and their installation has been transferred to the new owner.

## 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 - little progress this month due to other priorities. **Action: Phil**

### 4.3 Access to the bank account

Thanks to COVID our insurers have extended our insurance by three months. Mary will talk to our insurers in June as part of the renewal process and obtain their view of the changes at RBS. **Action: Mary**

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.

**Action: All**

### 4.4 Electricity account

We will obtain up to date meter readings and pass these onto SSE. **Action: Mary**

## 5 Finance Director's Report

### 5.1 Monthly Statistics

#### Revenue for March:-

##### Brought forward

Balance	<b>£1,084.78</b>		
Creditors		£6,632.54	
Debtors		£4,981.21	
Net			£1,651.33
<b>Bank balance</b>			<b>£10,014.19</b>

##### This month

Income	£415.50		
Expenditure	£541.30		
<b>P&amp;L</b>	<b>-£125.80</b>		
Creditors		£203.00	
Debtors		£31.55	
Net			£171.45
<b>Adjusted P&amp;L</b>			<b>£45.65</b>

##### Carried forward

Balance	<b>£958.98</b>		
Creditors		£6,835.54	
Debtors		£5,012.76	
Net			£1,822.78
<b>Bank balance</b>			<b>£10,059.84</b>

Without prior notice Plusnet have changed the date of payment and appear to have altered the amount due, we are not sure if this is a mistake. We will see if they correct this next month. **Action: Phil**

This month's accounts shows the expected £135 payment for insurance to Zurich which was due but not paid, the information we have been granted a free three month extension to our insurance came in too late to change this month's figures. We will alter the date of the annual payment date to June. **Action: Kath**

Phil has started a review of replacement equipment costs to be able to put together a budget. This will not be as straightforward as first thought as units have been through several iterations since we bought the bulk of our equipment. Some manufacturer's hardware has been upgraded and enhanced and is now more expensive; however new lower priced entry level units have also been introduced. Some equipment is also shown as "out of stock pending the release of a newer version". In addition there are now alternative manufacturers supplying rival equipment which may be more suitable for our use. We will therefore have to look again at what units are best suited to our needs before pricing replacements. **Action: Phil**

Phil & Mary's expenses claims were not settled this month as we expected that the insurance payment was due and this would have had to be paid by credit card by Mary. So the claims payment will now be made before the next meeting.

**Action Mary, Phil & Kath**

### 5.2 Next year's tariff

The total number of gigabytes sold was 9,700. The break even tariff for 2 fibre lines is 114 GB per £1, for 3 fibre lines is 76 GB per £1 and for 4 fibre lines is 57 GB per £1.

### 5.3 Outstanding subscribers' debt

The outstanding debt is £10.

### 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

All payments are up to date.

### 5.6 Annual Accounts, HMRC & Companies House Returns

Prior to the meeting Phil circulated the annual returns for the year ending August 2020. These were taken from Kath's monthly spreadsheet but updated to include depreciation, deferred grant payments and tax allowances. The updated

accounts were then used to complete the HMRC and Companies House returns. At the meeting we went through the returns focussing on the more obscure calculations. By the end of the session everyone agreed the derivation of the figures. It was decided to revisit the documents once more before making the submissions. Our tax bill for the year is £57.76. **Action: All**

## 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**

Unable to access a website - One subscriber has reported they cannot access one specific website since we made the switch from Zen to Plusnet. We will replace the Achmore Hall router and then rerun the tests. No progress this month.

**Action: Phil**

The problems with the Achmore line's poor performance persist. We have run several tests for Plusnet. The latest was to connect through the master socket, to replace the micro filter, to replace telephone cable, to configure and install a replacement router and to replace the Ethernet cable that connects the Raspberry Pi test unit to the router. All tests show the same pattern, response times are mostly OK but at times dip well below the agreed service level. Discussions with the Plusnet "technical" team have made it clear that the only statistics they can access are our connection to the fibre cabinet - which look OK. They are not able to get any information about the remainder of the network and it seems more than likely that this is where the problem lies. We have asked Plusnet to set up monitoring on this part of the network for an extended period rather than just send out an engineer. We continue to liaise with Plusnet. **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 - no progress this month due to other priorities. **Action: Phil**

**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 but it has been partly tested (ahead of time) as the problems on Creag Mhaol caused the backup line in Lochcarron to automatically be brought into service **Action: Phil**

There were several faults on the Achmore High relay and its connection to the Strome Low relay on the 30<sup>th</sup> March. Some units were recovered from "sea level" only to fail a short time later. After some trial and error it was discovered that the dish that connects to Ardaneaskan was causing the problem and that the dish on Strome Low that connects to Achmore High had a separate problem. We visited Creag Mhaol and found corrosion on the Ethernet connection of the Ardaneaskan dish to the MikroTik router. The router was cleaned and the Ethernet cable and dish element were replaced. The corrosion had obviously been accumulating for some time but it seems likely that the prolonged heavy rain just before the failure was enough to trigger the fault.

The Strome relay dish had lost its configuration and this was restored from a backup. Although there was no sign of corrosion at Strome Low the connections to this dish were coated with dielectric grease. The Strome relay dish that connects to the Achmore high relay failed again a few days later and as of 14<sup>th</sup> April is still offline - all subscribers in Ardaneaskan East, North Strome, Strome Ferry and Ardnarff have been automatically routed through Lochcarron.

Hopefully we will be able to recover the Strome Low dish without another trip to Creag Mhaol. **Action: Phil**

#### 7.1.1 *Usage quotas*

The monthly total for March was 6.8 TB. The daily average was 220 GB, with a peak usage of 357 GB on Monday 1<sup>st</sup>. 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 quota in March and have had their quotas increased.

### 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

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

#### 7.1.3.3 Ardaneaskan West

Nothing to report

#### 7.1.3.4 Ardnarff

Nothing to report

#### 7.1.3.5 Braeintra

Nothing to report

#### 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 will be completed at the first opportunity once the COVID restrictions are lifted. **Action: Phil**

#### 7.1.3.8 Strome Ferry

The North Strome relay will be completed at the first opportunity once the COVID restrictions are lifted. **Action: Phil**

The Strome Ferry installation will be completed at the first opportunity once the COVID restrictions are lifted. **Action: Phil**

We will install a further low level test site in Strome Ferry once the COVID restrictions are lifted. **Action: Phil**

#### 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. **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

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.

**Action: Phil & Mary**

### 8.2.2 Achmore

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

To test the full potential of this link the current router in Achmore Hall will need to be upgraded to support 1 Gbps

Ethernet ports; we have a suitable router "in stock". **Action: Phil**

We have run yet more tests at Plusnet's request, the results were very poor. **Action: Phil, Plusnet**

### 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

**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

Some configuration changes are pending. **Action: Phil**

### 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. 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.

All work at subscriber's premises has been suspended pending the relaxation of the government's COVID restrictions.

#### 8.7.1.1 Ardaneaskan East

We are part way through the firmware updates and configuration of the new subscribers' equipment. **Action: Phil**

#### 8.7.1.2 Strome Ferry

Waiting on the upgrade of the North Strome relay

#### 8.7.1.3 Leacanashie

Ready to start installations

#### 8.7.1.4 North Strome

Ready to start installations

#### 8.7.1.5 Achmore

Ready to start installations

#### 8.7.1.6 Portchullin

Installations pending Portchullin raised beach enclosure test.

### 8.7.2 Phase 4 - Further investigations / backbone development required.

#### 8.7.2.1 Ardaneaskan West

#### 8.7.2.2 Reraig

#### 8.7.2.3 Lochcarron

#### 8.7.2.4 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 12<sup>th</sup> May 19:30 probably via Microsoft Teams

The meeting was held by Microsoft Teams video conference and finished at 20:40