

# Broadband Steering Group

Minutes of the Meeting held on the 19<sup>th</sup> February 2024 @ 7:30 pm at Fernaig House

## 1 Present and Apologies

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

## 2 Approve and adopt previous minutes

The previous minutes for January 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 Chairman's report

No progress this month rationalising all the different Pro Formas due to other commitments. **Action: Phil**

### 3.1 Bandwidth

Work continues to reduce the number of emails produced by the system, there is still more work to do to process the information. **Action: Phil**

### 3.2 False RADAR

There were 28 false RADAR events recorded since the last meeting. Half a dozen events occurred on the North Strome access point after the primary unit failed and the alternate unit was brought into service. It appears that the new unit, which was identical apart from having an upgraded chip, is more sensitive to noise from neighbouring frequencies. The unit was reconfigured to use a different "clean" frequency which also had problems. A third frequency has proved to be better. During investigations into the North Strome RADAR problems it became clear that we are "seeing" weak external transmissions from a third party. We will remap all the frequencies in use to make sure that they are still clear and reconfigure units if required. This is a large complex exercise and will take some time to complete,

Apart from the North Strome access point the majority of FR events have again been on the link between Strome High and Strome Low relays the Ardaneaskan West access point has also appeared several times.

We had also recorded a few instances where the Strome High and Low link had lost its connection, this link has been reconfigured to detect a loss of connection and automatically reboot the devices.

The Strome High and Low link is scheduled to be replaced by the new 60 GHz radios which will eliminate the FR events.

This upgrade will also free up more frequencies in the 5 GHz range which will give us more choice for the remaining 5 GHz radios. Most of the access points on Creag Mhaol are scheduled to be upgraded to units which will automatically map frequency usage to help better manage our frequency usage. **Action: Phil**

### 3.3 Subscribers

Live subscribers	- 64
Waiting for activation	- 0
Waiting for subscriber's confirmation of details / deposits	- 0
Pending installations	- 0
Waiting for installations	- 13
Leavers since the last minutes	- 1
New joiners since the last minutes	- 1
<b>Total</b>	<b>- 76</b>

No new installations were completed this month. as a landslip blocking vehicular access to Leacanashie is preventing installations.

We have had requests for connections in Lochcarron, Strathcarron and Balnacra; once our existing commitments have been met we will see if these are feasible and schedule the work. **Action: Phil**

### 3.4 New equipment

We will add our monitoring software to the support laptop so it can be used as a backup for the server should that fail. No progress this month. **Action: Phil**

The impending installation of the additional line in Achmore will require an upgrade to the existing router. That plus the installations due in the near future will mean that our stock of spare units will be reduced to the minimum. Given the disproportionately high deliver charges there was some debate as to what we should order. It was decided that we first order the restock of our essential spares and then top up the order with subscribers routers to the maximum allowed by the weight limit of the order to maximise the use of the delivery charge.

### 3.5 ISPs

We have been informed by Plusnet that they will no longer supply a business connection after 30<sup>th</sup> April. Mary looked at all the ISPs that can provide a service in the area and drew up a shortlist of candidates. After approval from the rest of

the directors Mary started the process to get an additional line in Achmore Hall from Spitfire. We are waiting for Spitfire to confirm the terms and conditions. **Action: Mary**  
 Once the new line has been installed, tested and put into service we will switch the Lochcarron Plusnet line to a new provider. Once the new line in Lochcarron has been installed, tested and put into service we will look at the current and projected utilisation before deciding whether to cancel the Achmore Hall Plusnet line taking us back to three lines or to switch this line to a new ISP and so remain with four lines. **Action: Phil, Mary**

### 3.6 Website

A significant amount of time has been spent checking the new website, bringing all the contents up to date and reindexing the content. **Completed**

## 4 Secretary's report

### 4.1 Risk register

No progress this month.

### 4.2 Long term support plan

We have adapted our software to work with the "AC Gen 2" units; we are looking at options to clone replacements devices remotely and in due course will look for volunteers at "remote" sites to hold spares. **Action: Phil**

### 4.3 Broadband in Achmore Hall

We are still waiting for the Hall committee to test and sign off the installation. **Action: Hall committee**

### 4.4 Electricity price increases

In the light of the recent increases in electricity charges it was decided to review the amounts paid for hosting relays and to increase payments. This will result in an increase of approximately 50% for the portion of the payments relating to the electricity charges. **Action: Phil, Kath**

## 5 Finance Director's Report

### 5.1 Monthly Statistics

#### Revenue for January

##### Brought forward

Balance	<b>£1,631.04</b>		
Creditors		£1,346.12	
Debtors		£1,246.90	
Net			£99.22

**Bank balance** **£9,647.33**

##### This month

Income	£596.50
Expenditure	£602.24

**P&L** **-£5.74**

Creditors	£152.29
Debtors	£111.91
Net	£40.38

**Adjusted P&L** **£34.64**

##### Carried forward

Balance	<b>£1,625.30</b>		
Creditors		£1,498.41	
Debtors		£1,358.81	
Net			£139.60
<b>Bank balance</b>			<b>£9,681.97</b>

### Outstanding Expenses Claims

All claims are up to date.

## 5.2 *Next year's tariff*

The total number of gigabytes sold was 25,800, which makes the break even tariff for 3 fibre lines 215 GB per £1 and for 4 fibre lines 161 GB per £1. Revised figures are based on an expected charge of ~£40 per line per month.

## 5.3 *Outstanding subscribers' debt*

All accounts are up to date.

## 5.4 *Housekeeping*

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

## 5.5 *Payments for installations of subscriber's equipment*

All payments are up to date.

## 5.6 *Subscriber Payment Errors*

Cheques are ready to dispatch to repay subscribers' overpayments. **Action: Kath**

# 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 *Issues raised by Subscribers*

#### 7.1.1.1 *How can subscribers contact CMNet when the internet is down?*

We will investigate the options; ideally the CMNet support team needs to receive problem reports via email so our initial investigations will be whether voice mails can be forwarded via email. We are investigating options to send and receive emails from mobile phone when there is no internet connection. **Action: All**

There was some debate about formalising subscribers' problem reports as on occasion there can be quite a dialogue before the issue is properly defined. It was decided that we should produce a checklist to be sent to all subscribers to be used prior to reporting problems. Phil circulated a proposal which will be updated in the light of comments and suggestions at the meeting. **Action: Phil**

#### 7.1.1.2 *Fernaig*

No issues

#### 7.1.1.3 *Achmore*

No issues

#### 7.1.1.4 *The Glen*

No issues

#### 7.1.1.5 *Braeintra*

One subscriber has reported poor performance - this is down to obstructions in the line of sight of the subscriber's antenna. **Action: Subscriber**

One subscriber has reported drop outs and poor performance - this is down to obstructions in the line of sight of the subscriber's antenna, we will relocate their external antenna to restore a clear line of sight. **Action: Phil**

One subscriber reported drop outs when using secondary access points. The mains LAN extenders have been replaced and we will review the situation when we have a few weeks' data. **Action: Subscriber, Phil**

#### 7.1.1.6 *Craig*

We have asked a subscriber to check the line of sight for obstructions. **Action: Subscriber**

#### 7.1.1.7 *Ardaneaskan East*

No issues

#### 7.1.1.8 *Ardaneaskan West*

No issues

#### 7.1.1.9 *Leacanashie*

No issues

#### 7.1.1.10 *North Strome*

One subscriber is having issues preventing the installation of a whole house Wi-Fi system. We propose to replace the mains LAN extenders with an Ethernet cable. **Action: Phil**

The North Strome access point based on Creag Mhaol failed and the alternate device was brought into service. This unit then had problems with false RADAR events and it took a few days before the service was stabilised. **Completed**

#### 7.1.1.11 *Strome Ferry*

No issues

#### 7.1.1.12 *Ardnarff*

Poor speeds between buildings have been traced to mains LAN extenders not connecting properly probably caused by “noise” on the mains power these will be replaced with radios to link the buildings. We delivered another bracket and fitting for the subscriber to install. **Action: Subscriber**

#### 7.1.2 *Usage quotas*

The monthly total for January was 9.6 TB, the daily average was 310 GB, with a peak usage of 426 GB on Tuesday 2<sup>nd</sup>. CMNet peaks since operations started; highest average daily usage 367 GB, highest single days usage - 708 GB, highest monthly usage - 11.4 TB.

One subscriber exceeded their quota in January.

#### 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 *Planned upgrades of equipment*

##### 7.1.4.1 *Fernaig*

The access point will be configured and installed now we have received stocks from our suppliers. **Action: Phil**

##### 7.1.4.2 *Achmore*

The access point will be configured and installed now we have received stocks from our suppliers. **Action: Phil**

##### 7.1.4.3 *The Glen*

A new unit has been configured to replace the dish on Creag Mhaol; it and a backup will be installed when weather permits. **Action: Phil.**

##### 7.1.4.4 *Braeintra*

The access point will be configured and installed now we have received stocks from our suppliers. **Action: Phil**

##### 7.1.4.5 *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**

##### 7.1.4.6 *Ardaneaskan East*

The access point will be configured and installed now we have received stocks from our suppliers. **Action: Phil**

##### 7.1.4.7 *Ardaneaskan West*

No issues

##### 7.1.4.8 *Leacanashie*

The access point will be configured and installed now we have received stocks from our suppliers. **Action: Phil**

North

##### 7.1.4.9 *Strome*

The access point will be configured and installed now we have received stocks from our suppliers. **Action: Phil**

##### 7.1.4.10 *Strome Ferry*

No issues

##### 7.1.4.11 *Ardnarff*

No issues

#### 7.1.5 *Backbone relays*

##### 7.1.5.1 *Plockton*

We will check the installation and apply a second coat of paint to the school wall. **Action: Phil & Mary**

##### 7.1.5.2 *Achmore*

The Plusnet router will be replaced with something more suitable. No progress this month. **Action: Phil**

The 60 GHz dish mount will be upgraded. **Action: Phil**

An operating system upgrade to the Raspberry Pi corrupted the micro SD card, the unit has been recovered the operating systems upgrade has been installed and the unit is being configured so it can be replaced. **Action: Phil**

##### 7.1.5.3 *Lochcarron*

No issues.

#### 7.1.5.4 *Other relays*

No issues.

#### 7.1.6 *System monitoring servers*

The MikroTik server (“The Dude”) is having its database rebuilt (again!) - The newly installed equipment has been set up but there is still more work to do. The schedule to backup the logs has been altered to keep several days worth of data.

**Action: Phil**

The AirControl server shut itself down in December when Phil was away, when Phil returned he turned it back on again?

In the long term AirControl will be replaced by the new Ubiquiti monitoring software. **Action: Phil**

#### 7.1.7 *Documentation*

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**

#### 7.1.8 *Customer Contracts*

One contract is outstanding; we will chase the relevant subscriber. **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*

Nothing to report

### 7.3 *Volume trial*

#### 7.3.1 *Review of the trial*

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

### 7.4 *Terms of Reference*

Deferred

## 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 *Backbone development*

#### 8.2.1 *New relays*

##### 8.2.1.1 *Completed*

No progress this month.

##### 8.2.1.2 *Next steps*

The new relay automated recovery algorithms are being tested (some rather unexpectedly)

The buried mains power cables need to be permanently marked and documented. **Action: All**

##### 8.2.1.2.1 *Portchullin (raised beach)*

The Portchullin enclosures will be upgraded. **Action: Phil**

Re-align the existing Portchullin Access Point

Install test equipment in Portchullin

##### 8.2.1.2.2 *Reraig*

We are waiting for a subscriber to provide details of the land they own so we can determine where to install their relay.

**Action: Subscriber**

### 8.3 *Testing*

#### 8.3.1 *Management & accounting software*

Nothing to report

### 8.4 *Restoring power to the old TV repeater*

#### 8.4.1 *Removal of old cable*

No progress this month.

#### 8.4.2 Protection of cable on the hill

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

#### 8.4.3 Backup Generator

No progress this month.

### 8.5 ISPs

In the New Year we will look for an alternative to Plusnet as they no longer supply business broadband.

### 8.6 Implementations

#### 8.6.1 Phase 3

##### 8.6.1.1 Ardaneaskan East

All installations have been completed.

##### 8.6.1.2 Ardnarff

One installation needs to be upgraded. **Action: Subscriber**

##### 8.6.1.3 Strome Ferry

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

##### 8.6.1.4 North Strome

All installations have been completed.

##### 8.6.1.5 Achmore

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

##### 8.6.1.6 Portchullin

New enclosures have been purchased to act as replacements for the corroded units. **Action: Phil**

##### 8.6.1.7 Craig

All installations have been completed.

##### 8.6.1.8 Leacanashie

Two installations are waiting to be scheduled but a landslip blocking vehicular access to Leacanashie preventing installations. **Action: Phil**

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

##### 8.6.2.1 Ardaneaskan West

##### 8.6.2.2 Reraig

##### 8.6.2.3 Lochcarron

##### 8.6.2.4 Strathcarron

##### 8.6.2.5 Balnacra

### 8.7 Company Logo

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

### 8.8 General Data Protection Regulation (Data Protection Act)

Mary has reviewed our GDPR policy document; one small update has been completed. **Completed**

## 9 Director's training session

### 9.1 Configuring Ubiquiti and MikroTik equipment

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

## 10 AoB

## 11 Next meeting

Monday 18<sup>th</sup> March

The meeting finished at 21:20 pm