

**Digital Infrastructure Update**

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**1.0 EXECUTIVE SUMMARY**

1.1 This report provides an update on the various digital infrastructure projects including:

- Next Generation Broadband
  - BT commercial programme
  - Highlands and Islands Programme
  - Community Broadband Scotland
  - Extension of Funding
- Mobile Communications
  - Mobile Infrastructure Project
  - Scottish Government Pilot on Coll
  - Vodafone Rural
  - Commercial upgrades
- Public Wi-Fi

**RECOMMENDATIONS**

It is recommended that Oban, Lorn and the Isles Area Committee

1. Note the content of this report.

**Digital Infrastructure Update**

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**2.0 INTRODUCTION**

- 2.1 Work has commenced on a number of programmes which aim to improve the digital infrastructure across Argyll. This report provides an update on the various projects within the Oban, Lorn And The Isles area.

**3.0 RECOMMENDATIONS**

- 3.1 It is recommended that Oban, Lorn And The Isles Area Committee
1. Note the content of this report.

**4.0 DETAIL**

The work being undertaken in relation to digital infrastructure relates to broadband or mobile communications.

**4.1 Next Generation Broadband**

Next generation broadband within Oban, Lorn And The Isles is being delivered through one of three programmes – the commercial programme by BT (parts of Oban), the Highlands and Islands project and Community Broadband Scotland supported community projects.

- 4.2 Work continues on building the new infrastructure network to support next generation broadband. Having completed the subsea cable links in 2014, land based backhaul and local access fibre cables are required to connect communities. Whilst telephone exchanges will continue to provide a service in relation to telephone calls only a handful of exchanges will handle next generation broadband services, new access cables running from these “headend” exchanges directly to new communication cabinets within communities will ensure that the superfast speeds reach the local cabinets.

- 4.3 During 2015 and early 2016, we have seen new connections which mean that more residents in the OLI area can now access fibre services including the first connections on Mull within the Craignure and Tobermory exchange areas. Work continues in many locations to extend the fibre services to as many premises as possible within the budget of the project and further connections are expected during 2016. A summary of all exchanges across OLI is contained at Appendix 1.

- 4.4 Once the new fibre cabinets are live, customers who want access to superfast broadband must order the upgraded fibre service from their internet service provider. Members of the public can check whether they are able to order a next generation service at [www.scotlandsuperfast.com/where-when](http://www.scotlandsuperfast.com/where-when). If they are not able to order a next generation broadband service they will be given an indication of whether the service is likely to be available within their exchange area and if so when the first premises are expected to be connected.
- 4.5 BT commercial programme  
The commercial rollout by BT has connected some premises in Oban through 2015.
- 4.6 Highlands and Islands Programme  
The Highlands and Islands (H&I) programme in Argyll is currently expected to connect 83% of premises when taken with the commercial rollout.
- 4.7 The first live premises through the H&I programme were in Oban in September 2014 and during 2015 additional connections have been made within the Dalmally and Taynuilt exchange areas and latterly in Ledaig (for Benderloch area) and Craignure. During 2016, Tobermory and Balvicar exchange areas have also had their first fibre cabinets connected.
- 4.8 There have however been some delays which mean that deployment has been delayed and connections are still awaited in the Connel and Kilmelford exchange areas. It is not uncommon for issues associated with deployment of the new infrastructure e.g. blockages in cable ducting, delays getting electrical connections etc. to cause delays and it is hoped that live coverage will be provided during the first half of 2016. You can find out more about the activities involved in deploying the technology at [www.scotlandsuperfast.com/where-when/how-we-are-building-the-fibre-network/](http://www.scotlandsuperfast.com/where-when/how-we-are-building-the-fibre-network/). Further connections in other exchange areas are also expected through 2016.
- 4.9 Community Broadband Scotland  
Community Broadband Scotland (CBS) operates to support communities in taking forward their own broadband solution where coverage through the above programmes is not expected.
- 4.10 During 2015, CBS announced that a contractor has been appointed for the Giga Plus Argyll project which is seeking to provide superfast broadband to all premises on Colonsay, Iona, Lismore, Luing and parts of Mull, Jura, Islay and the Craignish Peninsula - approximately 1,400 properties. The project will receive £988,000 funding from CBS to assist with capital costs. It is expected that coverage will be rolled out to premises within the Giga Plus project area from 2016.
- 4.11 In addition, CBS have provided initial support and advice for communities in the north Lorn and Loch Awe areas. Other communities interested in investigating a community based solution can find information at [www.communitybroadbandscotland.org.uk](http://www.communitybroadbandscotland.org.uk).

## **Other broadband issues**

### 4.12 Extension of Funding

Additional funding has been received from Broadband Delivery UK (BDUK) and the Scottish Government which will provide a further £42 million to extend the rollout into Phase 2. It has not yet been confirmed as to how the additional funds will be allocated or the implications it could have for coverage in Argyll or in the OLI area.

4.13 In addition to government funding, the Phase 1 contracts provide for a “gain share” clause to clawback funding if the project reached agreed take up levels. In August 2015 it was announced that BT would make a payment of £17.8 million which will be used to extend coverage.

4.14 In order to better understand how the additional funding could be utilised, a modelling exercise is currently being undertaken. It is expected that this will be completed early in 2016 and will confirm those locations which cannot be covered by the fibre rollout.

### 4.15 **Mobile Communications**

#### Mobile Infrastructure Project

Previous updates detailed work associated with the Mobile Infrastructure Project. This project closed in March 2016 and unfortunately will not deliver any new masts within Argyll. Potential sites had been identified however the transmission links into the mobile operators’ networks were not available.

### 4.16 Scottish Government Pilot on Coll

In March 2015, a new mobile mast funded by the Scottish Government went live on the Island of Coll. The Scottish Government led the development stages of the project and provided the capital for the mast with Vodafone providing their equipment. Development Coll now owns the mast and will pay for its maintenance, the Council has agreed to make a contribution for the first 5 years.

4.17 The new mast provides 4G, 3G and 2G coverage with improvements in signal being reported not only on Coll but also on parts of Tiree and Mull. We are working with Scottish Futures Trust to confirm whether there is potential for any similar pilots elsewhere in Argyll.

### 4.18 Vodafone Rural

Vodafone initially announced seven communities in Argyll where they were investigating the opportunity to receive their Open Sure Signal product. Open Sure Signal boxes connect to the internet (minimum 4mbps required) and provide a 3G mobile coverage for Vodafone users within approximately 500m radius (reducing where trees, buildings etc. block the signal). The first live location in OLI was on the Isle of Seil in December 2015. Vodafone advised that the project was to run until 31 March 2016 and, at the time of writing, they were hoping to make installations on the Isle of Luing and the Isle of Tiree during March. Unfortunately, due to insufficient broadband speeds, Vodafone advised that they would not be able to complete the installation at Dunbeg.

#### 4.19 Commercial upgrades

When Ofcom awarded the contract for delivering 4G across the UK it included a stipulation that 95% of premises within Scotland receive coverage. A small amount of 4G coverage is available to the Oban area for one mobile operator. It is understood that further 4G deployments are planned and it is expected that this will focus on the upgrade of existing mast sites.

4.20 Alongside the 4G licence, amendments have been made to the licences issued by Ofcom to the mobile operators to implement 90 percent geographic voice coverage throughout the UK by no later than 31 December 2017. It is not yet known whether this will improve coverage across Oban, Lorn or the Isles area.

#### 4.21 Other activities

As updated at the last Environment, Development and Infrastructure Committee, we met with the Scottish Government and Scottish Futures Trust at the beginning of September to identify activities which can assist with improved mobile and broadband connectivity. We continue to work with them to develop opportunities within Argyll. We are also working with businesses, including through the Economic Forum, to lobby for improved mobile coverage. The issue of poor mobile coverage has also been raised by the fish farming industry and we are working together to lobby for improvements.

4.22 Our hilly landscape is one reason why mobile coverage can be intermittent. To try to assist mobile operators in building new masts, our Development Management Team has indicated an in principal agreement to trial larger masts within suitable locations. Detailed discussions will need to be undertaken to identify those locations which might be suitable.

#### 4.23 **Public Wi-Fi**

In November 2015, a pilot for public town centre Wi-Fi in Helensburgh, operated by Helensburgh based company BroadChord, commenced. Focused initially on Colquhoun Square, BroadChord are hoping to deliver a second phase of coverage the first half of 2016. Should the pilot in Helensburgh prove successful, consideration may be given to whether a similar public Wi-Fi service could be provided to other locations within Argyll.

### 5.0 **CONCLUSION**

5.1 Digital connectivity across Oban, Lorn and the Isles is improving with the biggest change during 2015 being the increased availability of superfast broadband to more rural locations, it is expected that this will continue during 2016. Progress on mobile coverage is less certain although we will continue to press for improved coverage for Argyll through both commercial and publically funded programmes.

### 6.0 **IMPLICATIONS**

6.1 Policy – the Single Outcome Agreement (SOA) and Economic Development Action Plan support improvements in the digital infrastructure.

- 6.2 Financial – Across Scotland funding of £410m has been committed to the Phase 1 next generation broadband project across Scotland (including a contribution from COSLA on behalf of all local authorities). A further £42m is confirmed for phase 2. No direct financial implications to the Council at the present time.
- 6.3 Legal – none.
- 6.4 HR – None.
- 6.5 Equalities – the differing nature of the deployment of new technology has the potential to lead to inequalities in terms of access to digital services including those which support business and personal development.
- 6.6 Risk – there is an overall risk that the economic benefits arising from modern digital infrastructure are not fully realised. There are risks that those areas which do not benefit from digital infrastructure could become less attractive locations within which to live and work which could have implications in relation to the SOA objective of growing the population. The various programmes are reliant on new technology and innovation which is developing rapidly. Some projects are reliant on commercial operator decisions to invest whilst grant funding is necessary for many aspects of digital infrastructure improvement in Argyll. These aspects all create a level of uncertainty around the extent of infrastructure improvements.
- 6.7 Customer Service – improvements in broadband and mobile technology improve the opportunities for digital based customer services.

## **Appendices**

- 1 Exchange overview
- 2 Broadband leaflet (correct at March 2016, updates will be available from <http://www.argyll-bute.gov.uk/superfast-broadband#leaflet>)

See also <http://www.argyll-bute.gov.uk/superfast-broadband>

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## APPENDIX 1 EXCHANGE OVERVIEW

Exchange Area	Initial Programme Date	Current estimate for date for 1 <sup>st</sup> connections
Appin	Exploring solutions	Jul-Dec 2016
Aros	Jul-Dec 2016	Jan-Jun 2016 Giga Plus Argyll – Summer 2016
Balvicar	Jul-Dec 2014	LIVE
Bonawe	Exploring solutions	Exploring solutions
Coll	Jul-Dec 2016	Jul-Dec 2016
Connel	Jul-Dec 2014	Jan-Jun 2016 <i>Announced</i>
Craignure	Jul-Dec 2014	LIVE Giga Plus Argyll – Summer 2016
Dalmally	Jul-Dec 2014	LIVE
Dervaig	Jul-Dec 2016	Jul-Dec 2016 Giga Plus Argyll – Summer 2016
Fionnphort	Exploring solutions	Giga Plus Argyll – Summer 2016
Kilchrenan	Exploring solutions	Exploring solutions
Kilmelford	Jul-Dec 2014	Jan-Jun 2016 <i>Announced</i>
Kilmore	Exploring solutions	Jul-Dec 2016
Kilniver	Exploring solutions	Exploring solutions
Kinlochspelve	Exploring solutions	Giga Plus Argyll – Summer 2016
Ledaig (Benderloch)	Jul-Dec 2014	LIVE
Lismore	Exploring solutions	Giga Plus Argyll – Summer 2016
Lochavich	Exploring solutions	Exploring solutions
Luing	Exploring solutions	Giga Plus Argyll – Summer 2016
Oban	Commercial – Sum 2014 H&I – Jul-Dec 2014	LIVE
Pennyghael	Exploring solutions	Giga Plus Argyll – Summer 2016
Scarinish (Tiree)	Jul-Dec 2016	Jan-Jun 2016 <i>Announced</i>
Taynuilt	Jul-Dec 2014	LIVE
Tiroran	Exploring solutions	Giga Plus Argyll – Summer 2016
Tobermory	Jul-Dec 2016	LIVE
Tyndrum	Exploring solutions	Jan-Jun 2016
Ulva Ferry	Exploring solutions	Giga Plus Argyll – Summer 2016

*Announced* – HIE or Digital Scotland Team have made formal announcements that this is an exchange they are actively working on, they would normally expect to make the first connections within 6 months of the announcements (subject to no delays being encountered).

# Next Generation Broadband in Argyll and Bute



Connections now in Balvicar, Campbeltown, Cardross, Carradale, Craginure, Dalmally, Dunoon, Helensburgh, Innellan, Inveraray, Kilmun, Ledaig, Lochgilphead, Machrihanish, Oban, Rothesay, Strachur, Taynuilt, Tarbert, Tighnabruaich and Tobermory exchange areas



More Exchange Areas coming soon...



**HIE**  
Highlands and Islands Enterprise  
Àrainn na Gàidhealach's nan Eilean

**£145.8 million for Highlands and Islands**



**£264 million for Rest of Scotland**

Delivered by **BT openreach**



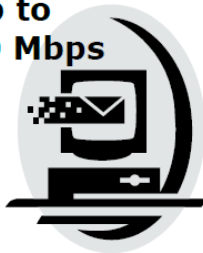
Keep up to date by registering at [www.scotlandsuperfast.com/in-the-loop](http://www.scotlandsuperfast.com/in-the-loop)

**2014**  
First properties within Argyll connected

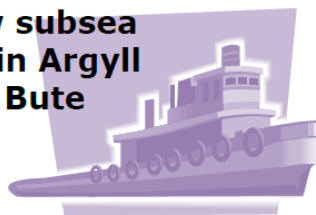
Better connected for business, online learning and social activities



Up to 80 Mbps



10 new subsea cables in Argyll and Bute



**85%**

of properties expected to be connected by 2017

**Digital Scotland**  
Community Broadband supporting communities to develop their own solution  
[www.communitybroadbandscotland.org](http://www.communitybroadbandscotland.org)

**GigaPlus Argyll**  
Community superfast for 1,400 premises

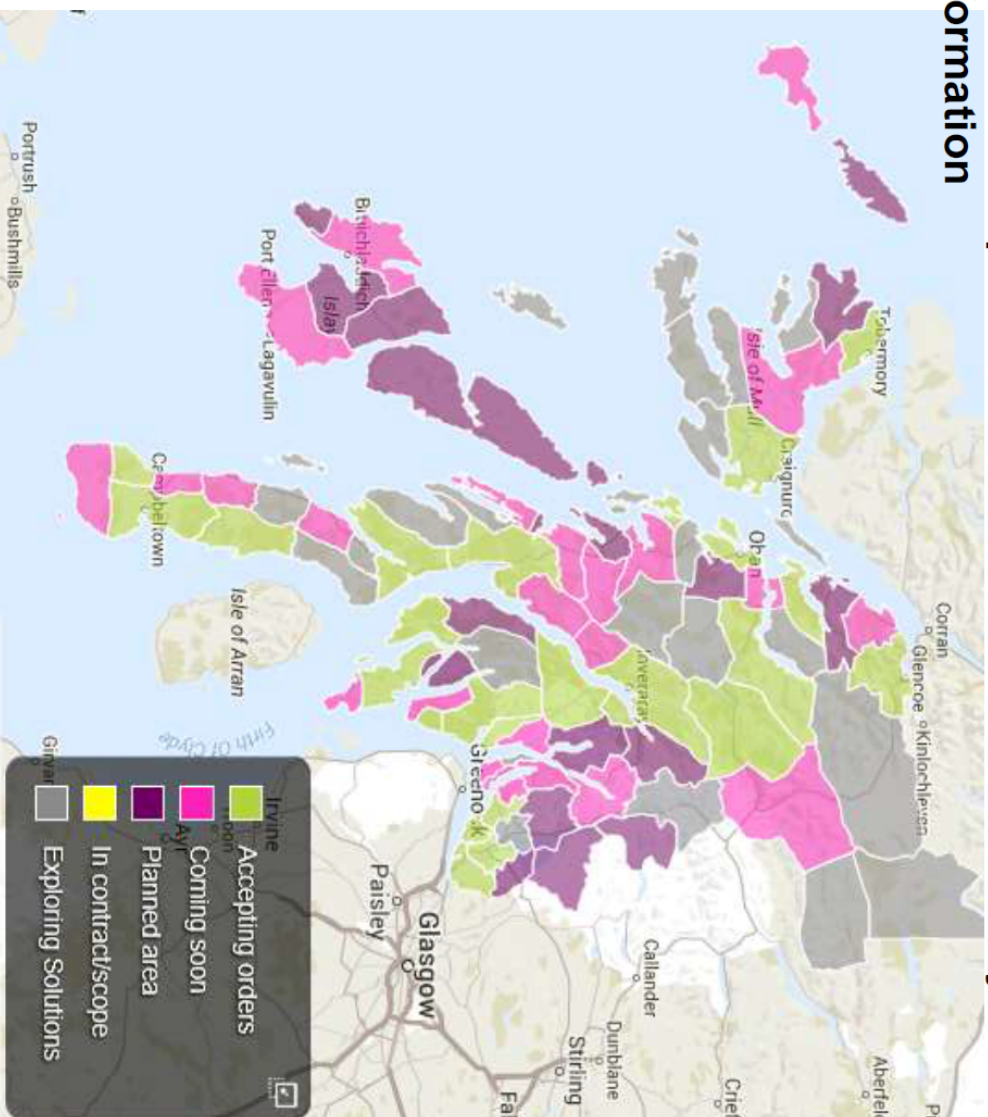
**Digital Scotland**  
Interactive map at [www.scotlandsuperfast.com](http://www.scotlandsuperfast.com)

[www.argyll-bute.gov.uk/superfast-broadband](http://www.argyll-bute.gov.uk/superfast-broadband)





Visit [www.scotlandsuperfast.com/when-and-enter-your-details](http://www.scotlandsuperfast.com/when-and-enter-your-details) for further information



For premises in Aros, Barbreck, Colonsay, Craignure, Dervaig, Fionnphort, Jura, Kinlochspelve, Lismore, Luing, Pennyghael, Port Askaig, Port Charlotte, Portnahaven, Tiroran and Ulva Ferry exchange areas see also [http://gigaplusargyll.co.uk/post\\_code](http://gigaplusargyll.co.uk/post_code)