

Draft Decision

Backhaul Services for Wireless Service Providers

Channel Islands Competition & Regulatory Authorities

Document No: CICRA 19/26

29 May 2019

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1. Executive Summary

- 1.1 Following its Call for Information in October 2018 (CICRA 18/43) (the “Call for Information”), the Channel Islands Competition and Regulatory Authorities¹ (the “Authority”) is issuing this Draft Decision with regards to Backhaul Products and Services to Support the Mobile Markets of the Channel Islands.
- 1.2 Three responses were received to the Call for Information. Taking those submissions into account, the Authority is of the provisional view that, in the absence of any changes to backhaul services, operators who do not have the necessary fixed infrastructure will not be able to compete equally with operators’ mobile businesses that are owned and controlled by the same party that controls fixed infrastructure necessary to support backhaul. This in turn could impact on the consumer experience.
- 1.3 Accordingly, the Authority is of the provisional view that fixed network operators should consider the development of leased line services and/or dark fibre to meet the specific requirements of wireless network operators licensed in the Channel Islands.

¹ The Jersey Competition Regulatory Authority (the “JCRA”) and the Guernsey Competition and Regulatory Authority (the “GCRA”) co-ordinate their activities with respect to competition law enforcement in the Channel Islands. For the purposes of this document, the JCRA and GCRA are together referred to as the “Authority”/ “CICRA”, and all references to the Authority / CICRA should therefore be read as references to the JCRA and GCRA unless the context otherwise requires.

2. Introduction

- 2.1 The Authority recognises that the Channel Islands is in a fortunate position to be served by three mobile network operators (“**MNOs**”).
- 2.2 MNOs invest in infrastructure to build mobile networks. The most obvious form of infrastructure investment is the infrastructure to support the antennas that provide the ‘radio’ part of the mobile service. These antennas can range from smaller micro-cells to large towers. The sites where the antennas are located are called “**base stations**”.
- 2.3 In order to connect the base stations to the switching and routing equipment (the “**core network**”) MNOs use a connection that is normally termed “**backhaul**”.
- 2.4 Historically, backhaul services have either been based on copper leased lines (commonly also known as private circuits) or point to point microwave links. However, as new mobile services such as access to the internet have been introduced on mobile networks, the data that is carried between the core network and the base stations has dramatically increased both in terms of **capacity** (the amount of data flowing between two points) and the **speed** (which drives the end consumer’s experience of the mobile data service being provided).
- 2.5 Historic forms of backhaul infrastructure have speed and capacity restrictions. The speed and capacity requirements of MNOs are increasingly being driven by customers consuming mobile data services. This could result in an MNO having to seek new solutions for backhaul. Currently, the considered solution to deliver increased speed and capacity is a dedicated fibre connection between the base station and the core network.
- 2.6 In Jersey the majority of the fibre network has been constructed by JT (Jersey) Limited (**JT Jersey**)². In Guernsey fibre networks have been constructed by Sure (Guernsey) Limited (**Sure Guernsey**)³ with some coverage of the island being provided by JT Guernsey. Both JT and Sure operate mobile networks and can take advantage of their own fibre networks in their respective islands. Guernsey Airtel Limited and Jersey Airtel Limited (together **Airtel**) and Home Net Limited, on the other hand, operate wireless based networks on the islands and are reliant on backhaul service being made available from Sure Guernsey and JT Jersey. This is because barriers to replicating infrastructure in a small island economy present economy of scale

² JT Jersey holds a licence in Jersey and JT (Guernsey) Limited (**JT Guernsey**) holds a license in Guernsey. These two entities are referred to collectively as “**JT**”

³ Sure (Jersey) Limited (**Sure Jersey**) holds a licence in Jersey and Sure Guernsey holds a license in Guernsey. These two entities are referred to collectively as “**Sure**”

challenges. In these circumstances, the economy is often best served by sharing the use of such infrastructure through a wholesale arrangement.

- 2.7 The Authority is currently engaged in discussions with operators on the potential timing for introducing 5G networks in the Channel Islands. It is now globally recognised that potential uses (often referred to as 'use cases') for 5G networks could significantly increase the demand for capacity and speed on backhaul networks and currently the only realistic means of delivering such requirements is by fibre networks.
- 2.8 However, this issue is not only restricted to future 5G networks. Current demand for high speed data services on 4G networks can place a burden onto the backhaul solutions of some operators. Any proposed solution as a result of this consultation process should therefore be scoped to meet the needs of 4G and well as future 5G services.
- 2.9 On 19 October 2018 the Authority launched its consultation on backhaul services with the Call for Information. The Authority received three responses. This document addresses those responses and sets out the proposed Draft Decision.

3. Purpose of this Draft Decision

- 3.1 Following its Call for Information, the Authority is issuing this non-statutory Draft Decision (the **Draft Decision**) with regards to backhaul services.
- 3.2 The Authority received submissions from Sure and Airtel in response to the Call for Information. In addition, JT separately provided input by way of reference to a previously submitted letter. The Authority has considered JT's letter as part of the response to the Call for Information.
- 3.3 Having taken into consideration all of the responses received from stakeholders, the Authority remains concerned as to whether the current backhaul products and services:
- meet the requirements of the relevant government policies, especially with regards to the introduction of 5G networks;
 - meet the speed and capacity requirements of mobile network operators as higher data speeds are introduced in the 4G standards and future 5G networks; and
 - allow all mobile network operators the opportunity to compete equally efficiently and effectively in the Channel Islands' market place.
- 3.4 Ultimately, in the absence of any changes to backhaul services, the Authority's provisional view is that operators who do not have the necessary fixed infrastructure (such as Airtel) will not be able to compete equally with fixed network operators' mobile businesses that are owned and controlled by the same party that controls fixed infrastructure necessary to support backhaul (i.e. JT Jersey and Sure Guernsey) which could impact on the consumer experience.
- 3.5 Accordingly, the Authority is of the provisional view that fixed network operators should consider the development of services to better meet the specific requirements of all wireless network operators licensed in the Channel Islands. In carrying out this consultation, the Authority is adopting a pan-Channel Island approach to potential solutions, both in terms of technical aspects and pricing.
- 3.6 In this Draft Decision the Authority considers the following:
- First, we address the responses to the Call for Information (section 4);
 - Second, we carry out an assessment on whether there is a requirement to develop an appropriate backhaul solution for wireless network operators (section 5);
 - Third, based on the analysis undertaken in sections 4 and 5, we set out the directions as proposed by the Authority (section 6).

3.7 The Authority is issuing this Draft Decision to provide interested parties with a further opportunity to comment on the proposed directions, prior to the Authority issuing its Final Decision as part of the pre-statutory process.

3.8 **Disclaimer** – *This document does not constitute legal, technical or commercial advice; the Authority is not bound by this document and may amend it from time to time. This document is without prejudice to the legal position or the rights and duties of the JCRA and GCRA to exercise regulator powers generally.*

4. Structure of this Draft Decision

4.1 This Draft Decision is set out as follows:

Section 4: Summary of Call for Information responses

Section 5: The Authorities approach to backhaul

Section 6: Draft Decision

Section 7: Summary and next steps

Annex 1: Legal and Regulatory Framework

4.2 Interested parties are invited to submit comments to the Authority in writing or by email on the matters set out in this document to the following addresses:

<p>2nd Floor, Salisbury House 1-9 Union Street St Helier Jersey JE2 3RF</p> <p>Email: info@cticra.je</p>	<p>Suite 4, 1st Floor La Plaiderie Chambers La Plaiderie St Peter Port Guernsey GY1 1WG</p> <p>Email: infor@cticra.gg</p>
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4.3 All comments should be clearly marked 'Draft Decision – Backhaul' and should arrive by 5pm on **27 June 2019**.

4.4 In line with Authority's consultation policy, the Authority intends to make responses to the consultation available on the CICRA website (www.cticra.je or www.cticra.gg), the combined website of the GCRA and JCRA. Any material that is confidential should be put in a separate annex and clearly marked as such so that it may be kept confidential. The Authority regrets that it is not in a position to respond individually to the responses to this consultation.

5. Summary of Responses to Call for Information

Introduction

5.1 Two responses were received to the Call for Information – from Sure and Airtel. JT referred Case Officers to a previously submitted letter for its submissions to the Call for Information.

5.2 In this section we address:

- Part 1 - the submissions made by Sure and Airtel in response to the questions posed in the Call for Information;
- Part 2 - the additional background information and views submitted by Airtel which were not directly in response to the questions in the Call for Information; and
- Part 3 - the earlier letter from JT which was also not directly in response to the questions posed in the Call for Information.

PART 1 – Responses to Questions

Question 1: What backhaul products and services do you currently obtain from another operator?

Responses from operators

5.3 Sure's requirement is for 100Mbps leased line connectivity from the majority of its base station sites, with the sites with higher utilisation being served by 1Gbps links. Sure considered both of these speeds are achieved through standard fibre-based services within the operator's leased line portfolio.

5.4 Airtel stated that it has a variety of existing backhaul services from JT Jersey, Sure Jersey and Newtel Ltd in Jersey, noting that JT Jersey is the dominant supplier in Jersey. In Guernsey, Airtel uses Sure Guernsey for its services. The services Airtel uses in Jersey and Guernsey are:

- On-island [X]Mbps, [X]Mbps and [X]Mbps point to point leased lines
- [X]Gbps inter-island leased lines and
- Various services to the UK (ranging from E1's to Ethernet of different bandwidths)

CICRA's analysis of responses received

5.5 Sure is satisfied with the current backhaul products across the Channel Islands.

5.6 Airtel is wholly reliant on third party operators in both Jersey and Guernsey to supply it with leased lines for backhaul services.

5.7 The Authority is unable to opine on why, based on the responses provided, the requirements are different between Sure and Airtel. On the assumption that Airtel is managing its network in an efficient manner we do not intend to second guess the Airtel requirement for leased line services.

CICRA's conclusions

5.8 Airtel is not in a position to self-supply fibre based leased lines services and is reliant on Sure Jersey, JT Jersey and Newtel Ltd to supply it with leased lines in Jersey, and Sure Guernsey in Guernsey.

**Question 2: Do the current backhaul products meet your technical / operational requirements?
If not, please provide the rationale behind your response.**

Responses from operators

5.9 Sure responded positively that wired (rather than wireless) connectivity for its mobile network has been built using standard wholesale leased lines and it has no technical or operational issues in this regard.

5.10 Airtel stated that the current products do not meet their requirements. The current product mix offered by Channel Islands fixed network operators are limited in bandwidth offered. Only 10 / 100 / 1000 Mbps are available for mobile site backhaul and more recently 500 Mbps has been introduced.

5.11 The effect of the limited product set causes Airtel to either over dimension capacity (thereby paying more) or under dimension its network (saving cost but could have the effect of impacting user experience).

CICRA's analysis of responses received

5.12 Whilst Sure is satisfied with the present situation, the response of Airtel sets out the argument that the present leased line services (in terms of product and price) results in it having to make sub-optimal trade-offs when it comes to investment and ordering of leased lines for backhaul services. As the Authority has considered elsewhere Airtel is not in a position where it is able to specify and implement its own backhaul solution, instead it is reliant of taking services from the fixed network operators.

CICRA's conclusions

5.13 From the evidence put forward by Airtel the current portfolio of leased line services is not sufficient to allow it to dimension its backhaul network efficiently in the manner that it would wish to do so.

5.14 The current pricing for such services also results in Airtel having to make sub-optimal compromises when it comes to making purchasing decisions for leased lines.

Question 3: Are the current backhaul products affordable and priced at a level that supports your current business objectives? If not, please provide the rationale behind your response.

Responses from operators

5.15 For its current network requirements, Sure considers the current backhaul products affordable and priced at a level that supports its current business objectives. Not all of Sure’s base stations currently require a leased line for data backhaul. As an example, Sure has numerous base stations that are connected to the rest of its mobile network via radio links. Until such time as the backhaul requirements for 5G are established Sure considers that it will not be in a position to know whether such radio links, or variants of them, will continue to be able to provide a sustainable means of data connectivity. Sure qualified that as being a “*consideration for the future and not for today*”.

5.16 Airtel was of the view that there were two issues with the current pricing structure:

- It is not uniform, and
- The leased line products are unaffordable [by Airtel].

5.17 Airtel provided the following table as a comparison of the services it uses:

Service*	Jersey (£) (per Annum)	Guernsey (£) (per Annum)
10Mbps		
100Mbps		
1000Mbps		
[X]	[X]	[X]

*Jersey pricing is based on JT Jersey and Guernsey pricing is based on Sure Guernsey, except for the 500Mbps service where the price is based on Sure in both Bailiwicks

[X].

5.18 Airtel considers that its objective of providing a highly competitive mobile data broadband service in Channel Islands is proving difficult to achieve owing to what it considers to be unfordable backhaul services.

CICRA's analysis of responses received

- 5.19 Sure does not have any objections with the current portfolio of leased line products that are available to provide backhaul services across the Channels Islands.
- 5.20 On the other hand, Airtel is faced with purchasing leased lines from JT and Sure in the Channel Islands and is of the view that the current pricing is “unaffordable”. The Authority cannot comment on the “affordability” to Airtel, however, from discussions held between Case Officers and Airtel it understands that Airtel has taken the decision to prolong its reliance on microwave based backhaul and has had to make decisions constraining retail product development as well as limiting the take up of retail products in the market because of the lack of fibre based leased line products that would allow it to affordably expand and replace its existing backhaul services.
- 5.21 Case Officers note the differences in wholesale pricing that Airtel faces, where in one scenario the Guernsey price is ~50% more than the Jersey price for the same service.

CICRA's conclusions

- 5.22 The Authority has cause for concern on how the availability and pricing of fibre based leased line products affect the operations of operators who do not have the necessary fixed infrastructure (e.g. Airtel and Home Net), their investment decisions and their ability to compete with other mobile operators on a ‘level playing field’. Further, this is not in line with the Authority’s statutory duties regarding the promotion of competition. In Jersey, this includes the duty to act in such manner as it considers is best calculated to protect and further the short-term and long-term interests of users within Jersey of telecommunication services and perform them, wherever it considers it appropriate, by promoting competition among persons engaged in commercial activities connected with telecommunications in Jersey.⁴ In Guernsey, this includes the duty to introduce, maintain and promote effective and sustainable competition in the provision of telecommunications services.⁵
- 5.23 For some backhaul services Airtel has the opportunity to select services from up to three fixed network operators. However, in the majority of cases Airtel has a choice of the two fixed network operators to provide leased lines and both of these are direct competitors with Airtel in the mobile market.
- 5.24 The Authority also needs to take into account the 2018 States of Jersey⁶ and States of Guernsey⁷ respective telecoms policies which seek to ensure that there are differentiated broadband

⁴ Article 7(2)(a) of the Telecommunications (Jersey) Law 2002

⁵ Section 2(d) of the Regulation of Utilities (Bailiwick of Guernsey) Law 2001

⁶ <https://www.gov.je/Industry/TelecomsStrategy/Pages/FinalOxeraReportOnTelecomsStrategyForJersey.aspx>

⁷ <https://gov.gg/article/165840/Guernseys-first-ever-Telecoms-strategy-published>

products in the market. The Authority considers that mobile broadband is one way of ensuring that policy aim is met.

- 5.25 As noted at the outset, the future of 4G and 5G will be reliant on fibre networks for the backhauling of mobile traffic and it is therefore important that any proposed solution should be scoped to meet the needs of 4G as well as future 5G services.
- 5.26 The Authority considers that all wireless network operators should be able to obtain fibre solutions on a fair and reasonable basis which should provide equitable pricing and products for backhaul solutions.

Question 4: What additional backhaul products should be made available? Please provide the rationale behind your response.

Responses from operators

- 5.27 On the basis that its requirements are currently being fulfilled through a mixture of leased line services and radio links, Sure did not currently have a need for additional backhaul services.

- 5.28 Sure in its response stated:

“Noting the comments made by CICRA in relation to Airtel’s reliance on other parties to provide leased lines for backhaul connectivity, [Sure] may be able to provide an alternative fibre-based solution to that currently available in the Jersey market, for certain of Airtel’s mast site locations. We would be happy to hold feasibility discussions with Airtel, should this be something that might potentially interest them.”

- 5.29 Airtel was of the opinion that to meet the objectives of both the States of Jersey and the States of Guernsey, as set out in their respective digital policy documents, and to make the Channel Islands a leader in 5G and mobile data services, it is important that the current fixed network operators make available the right backhaul product mix at reasonable and justified price. If fixed network providers are unable to do so then it becomes imperative that a new class of product i.e. dark fibre access, be created where the fixed network providers will provide access to optical fibre. That is, the fixed network provider will provide the infrastructure for the optical fibre and maintain it. The end equipment (the electronics) will be procured, installed and maintained by the mobile network operator taking the dark fibre service. With the right mechanisms Airtel considers that the price of leased lines should be cut to a third or even a quarter in some instances.

5.30 [X]

5.31 Airtel noted that Ofcom has been working actively, with some success, to create such a product in the UK.

CICRA's analysis of responses received

5.32 Whilst Sure does not require additional backhaul services at this point in time, Airtel does require the availability of additional backhaul products including the potential to utilise dark fibre.

5.33 Dark fibre is often a remedy to support network competition. That is where the availability and suitability of wholesale products and services provided by an incumbent / dominant operator does not support a competitive environment. Dark fibre is currently available in a number of jurisdictions and it is being considered as a way forward to address the availability of fibre for backhaul for emerging mobile networks in a number of jurisdictions.

CICRA's conclusions

5.34 The Authority is aware that Airtel has approached both JT and Sure to request changes to the backhaul products currently on offer. Airtel has confirmed with the Authority that, at the time of drafting this Draft Decision, it has not received satisfactory responses to its requests.

5.35 With limited engagement from the fixed network operators to ensure that their wholesale customers are able to obtain the products and services that they have reasonably requested, the Authority is minded to consider further steps that could ensure that fixed network operators introduce new products to better meet the demands of 4G and 5G services beyond those of their own mobile businesses as well as further supporting the policies and strategies put forward by the States of Jersey and States of Guernsey.

5.36 In the first instance the Authority is minded that the introduction of a range of fibre based leased line products could meet the requirements of wireless operators for backhaul. However, in the case where such products are not forthcoming in an appropriate timeframe, or if the products proposed do not meet the operator's requirements, then the Authority could consider progressing the potential introduction of dark fibre services specifically to address this market requirement.

5.37 For the avoidance of doubt, this Draft Decision is focussed on the requirement for fit for purpose cost effective backhaul solutions for wireless service providers. It is not considering that actions taken during this process will automatically lead to the wider availability of dark fibre services.

However, if evidence is provided that dark fibre services are required to support other markets then the Authority will consider this under a separate consultation process.

Question 5: What pricing methodology should be applied to any new backhaul products that are made available? Please provide the rationale behind the response.

Responses from operators

5.38 Sure, in its response to this question was clear that:

"Sure has yet to understand the specific need for new backhaul services, particularly as leased line speeds as high as 10Gbps are now available across the Channel Islands."

5.39 Sure believes that there may be a technically achievable alternative solution that, in many circumstances, could help to reduce the costs incurred by mobile operators in relation to their backhaul requirements.

5.40 Airtel considers that there could be various ways to charge for fibre only products. However, it believes that the basis for price determination has to be the costs incurred by the operator in the business case built by them to recoup costs. Once the Authority has this information, an appropriate pricing mechanism can be developed. From Airtel's perspective, the current product mix is unsatisfactory, and the related pricing is untenable. These do not promote competition.

5.41 [X]

CICRA's analysis of responses received

5.42 The Authority notes Sure's invitation to engage further on this matter. However, primarily it is a discussion between wholesale customers and wholesale suppliers that needs to be encouraged to progress this matter. CICRA is not aware that any further discussions have taken place between operators.

5.43 Moving forward, the Authority seeks proposals for solutions that are focussed on the wireless service providers. This will include ensuring that the pricing of any proposed service is provided on a cost basis and at such a price that will support the development of this important and expanding market.

5.44 Airtel stated in a confidential response to the Authority that it has already made use of dark fibre from another infrastructure supplier in the Channel Islands and that the pricing of the dark

fibre is closer to the pricing sought by Airtel to meet its backhaul requirements. However the other infrastructure supplier does not have an extensive network that can supply all of Airtel's requirements.

CICRA's conclusions

5.45 The Authority welcomes the responses from Sure and Airtel on the development of solutions and discussions between operators are encouraged to progress, amongst other things, the pricing mechanism. The confidential information provided to the Authority evidences the fact that there are fibre solutions available at a significantly lower price point than those put forward by JT and Sure.

PART 2 – Additional Information from Airtel

5.46 In addition to the responses to the Call for Information questions, Airtel provided background information on the issues raised in the Call for Information as well as a further response that did not specifically relate to the questions posed. These details are considered in this section.

Airtel's Background Information

Growth of Airtel's Network

5.47 Airtel stated that it launched its network in 2007-8 with backhaul based on E1 capacity. This increased over time. At that time all of this backhaul capacity was provided over microwave links.

5.48 Airtel submitted that the introduction of 4G in 2015 created a significant opportunity for all operators to offer a real alternative to copper home broadband. Airtel was the only commercially live operator to welcome this and offer a 4+ (LTE-A) home broadband from day one of commercial launch. The decoupling of line rental from broadband price, the convenience of mobility and a broadband experience as good as wired brought a surge in users and data usage alike. Within the first 3 months of commercial launch the daily traffic doubled to [X]GB. Today, Airtel network is supporting ~[X]TB of traffic on a daily basis with peaks of [X]TB on exceptionally busy days.

5.49 Airtel stated that this growth has been supported by microwave backhaul links which have grown from a basic capacity of [X] x E1s to [X] Mbps per site. The highest capacity microwave for aggregator sites is [X] Mbps. On busy sites, where demand for data services is higher, and microwave is no longer feasible, Airtel has taken high bandwidth leased lines from local providers. Leased lines have also been taken on key aggregator sites to offer resilience.

Future of 5G Networks

5.50 Airtel submitted that 5G holds “a lot of promise” with latency of less than a millisecond, wireless speeds in excess of 1Gbps per user and the possibility to run multiple slices of network within one network have been well discussed and documented in the 5G summit organised by the Authority early last year. Similarly, Airtel stated that the use cases for 5G go well beyond reliable, high-speed wireless Home Broadband, and that massive IoT⁸ and Ultra low latency applications will be key areas which will define 5G use.

5.51 Airtel stated that the use of the high frequency bands for delivering 5G services will require more sites to be built. These will, most likely be a mix of micro and pico cells. The most feasible way of connecting these new sites to Airtel’s core network will be over fibre. Further, Airtel stated that to support high throughputs for 5G on all sites (including macro sites) will require transition away from microwave towards fibre as a preferred means of backhaul. Airtel was of the view that these products and services in their current shape and form will “stifle true 5G competition [X].

Leased Line Pricing

5.52 Airtel stated that it has already been established by the Authority that JT Jersey in Jersey and Sure Guernsey in Guernsey hold SMP status in the leased line market. The prices for the services are therefore regulated. Airtel submit that pricing now needs intervention, the same as Ofcom is doing in UK by means of its BCMR consultation. Ofcom states in 1.1 of ‘2018 BCMR Consultation – Volume 1’.

“Ofcom’s Strategy is to promote investment and competition, complemented by timely public interventions where there is no commercial case to build networks. Delivering better broadband for people and businesses can be done technically in a number of ways. In general, more fibre technology is critical enabling better services through full fibre networks, dedicated business connections, and providing connections to current 4G, and new 5G mobile base stations.”

5.53 In the same document Ofcom states:

The cost of providing a leased line

3.42 *To provide active or passive leased lines, the telecoms provider needs a connection to the customer’s premises. For an active connection, a telecoms provider also needs to provide electronics to connect to each end of the fibre.*

Table 3.9: Costs of providing leased line services at different speeds on selected route distances

Cost Component (£)	Ethernet 1 Gbit/s		Ethernet 10 Gbit/s	
	100m	1km	100m	1km
Electronic equipment and installation	285	285	[X]* 795 to 1,193	[X] 795 to 1,193
Physical infrastructure	9.6K	84K	9.6K	84K
Total Cost	9.9K	84.2K	[X] 10.4 to 10.K	[X] 84.7 to 85.2K

⁸ IoT – Internet of Things

Proportion of infrastructure cost %	97.1%	99.7%	[X] 88.9 to 92.3%	[X] 98.6 to 99.1%
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Source: Ofcom analysis of publicly available data and responses to s.135 notices

* CICRA NOTE – the redaction is from the Ofcom document – not added by CICRA

3.43 *the physical infrastructure (i.e. the duct and optical fibre) accounts for a large proportion of the cost of providing a leased line: our estimates suggest more than 90% (see table 9). Once physical infrastructure is built its costs are sunk, largely fixed, and do not vary depending on the bandwidth of the connection.*

3.44 *table 3.9 shows how costs vary by type of leased line service and by the connection length. It shows our estimates of the costs to supply leased lines for two different services (Ethernet 1Gbps and 10Gbps) and for two different connection lengths (100 m and 1 km). These costs are indicative of costs in an urban area. Costs in a rural area would be much less where per metre costs of digging are lower. These costs also assume that only one connection is applied, whereas operators would typically seek to supply more than one customer/leased line, reducing the cost per connection. Nonetheless, the table shows that the costs of the physical infrastructure are high as a proportion of the overall cost.*

CICRA's Assessment

5.54 The Authority notes the growth that Airtel has experienced and the impact that data services have on backhaul services. The Authority understands from Airtel that the lack of suitable backhaul capacity along with the high costs incurred with obtaining backhaul has resulted in Airtel curtailing its marketing of its mobile broadband service.

5.55 The Authority acknowledges that future mobile network topologies, including network densification could mean that existing microwave solutions may not be suitable to support micro and pico cells and that a fibre solution could provide the engineering solution for backhaul to these types of cell sites.

5.56 The Authority notes the table from Ofcom that Airtel uses to support its argument on future pricing for backhaul services and that the physical infrastructure costs form the major cost for providing leased lines. The Authority would agree that the major cost for providing any form of leased line is the infrastructure cost to provide the fibre network that would support the leased line solution. The Ofcom data is provided for 100m and 1km leased line services. This provides a useful indicator of UK based pricing and the proportion of infrastructure cost, however, it cannot be considered as evidence as to the costs incurred in the Channel Islands owing to a number of potential differences including: construction costs, network topology, existing network investment as well as the scope and scale of the market in the UK.

CICRA's Conclusion

- 5.57 The availability of diverse broadband access is a key requirement of the States of Jersey and States of Guernsey telecoms policies. The Authority is concerned that, according to Airtel, its successful launch of a mobile broadband service in competition to the fixed broadband offerings was unsustainable owing to the restrictions of the availability and suitability of backhaul services.
- 5.58 The Authority recognises that there is expected to be a growth in backhaul traffic from the future deployment of 4G and the introduction of 5G services could mean that existing backhaul services may not be sufficient for mobile network operators.
- 5.59 Pricing of new fibre backhaul services will, taking into account the submission from Airtel, be crucial in order for it to move from its current backhaul position to a position where all of its backhaul services will be provided on a fibre based service. The Authority is considering seeking the development of backhaul products by fixed network operators where the pricing reflect the costs incurred in the provision of these services.

PART 3 – Response from JT

- 5.60 JT did not directly respond to this Call for Information. However, subsequent to the closure of the Call for Information JT requested that the Authority consider the contents of its letter previously submitted on this matter, such letter dated 7 September 2018.
- 5.61 In that letter JT stated that *“it agreed that it is important for the right mobile backhaul solutions to be available in the Bailiwicks of Jersey and Guernsey to support 5G roll out and suggest that it would be appropriate to create a 10Gb pan CI backhaul specific product to be used in Jersey and Guernsey.”*
- 5.62 JT goes on to state that *“we believe that it would be appropriate for the new product to adopt pan CI pricing with the monthly re-occurring rate being the same in both islands with the installation/connection charge set at a fixed cost based rate. Where no network currently exists and a network extension/build is required to service the mobile site then this should be priced on a standard cost based price per square metre rate for dig, duct, equipment, etc.”*
- 5.63 JT closed its response by saying that *“we believe that the first step would be for the incumbent fixed network providers (Sure and JT) to enter into discussions to specify a Pan CI mobile backhaul product for further discussion with Airtel and CICRA”*.

CICRA’s Assessment

- 5.64 The Authority welcomes JT’s response on this matter. The Authority however considers that fixed network operators, including JT Jersey, should first seek to engage with their wholesale customers to ensure that any backhaul product development meets their requirements.

5.65 As previously stated pricing is important for wireless operators such as Airtel. The Authority would if necessary consider intervening at a later stage in the product development cycle if agreement on pricing had not been reached.

CICRA's Conclusion

5.66 The Authority it is not aware of any further discussions between Airtel and the fixed network operators being held on this matter or recommendations being made and believe that the Authority has no choice but to intervene and recommend a way forward.

6. Authority's Approach to Backhaul

Introduction

- 6.1 Having assessed the responses to the Call for Information in Section 4, in this section we consider the approach that should be taken by the Authority to address any issues identified in the backhaul market.
- 6.2 In order to fully assess this matter, this section is split as follows:
- a) First, the Authority addresses the published requirements of the States of Jersey and the States of Guernsey telecoms policies with regards to the requirement for backhaul
 - b) Second, the Authority summarises what it considers to be the requirement for backhaul services in the Channel Islands
 - c) Third, the Authority considers market dominance and what impact this might have on the market for backhaul services
 - d) Fourth, the Authority concludes this section by setting out potential remedies.

Item 1 – States Policy

- 6.3 2018 saw both the States of Jersey and the States of Guernsey publish telecoms strategies. In their respective policies, both of the governments made reference to the importance of access to backhaul with access being focussed on either a FRAND basis in Jersey, or at a regulated costs in the case of Guernsey.
- 6.4 In this section the Authority sets out the relevant sections from the Governments' policies.

States of Jersey

- 6.5 The States of Jersey telecoms policy is specific on the matter of backhaul. The relevant sections of the policy state as follows:

Policy principle 1

Promote the path to next generation connectivity building on the current advanced digital infrastructure already in place

1. *Be a fast adopter of next generation technologies by:*

a. adopting, as a general principle, proactive policies to encourage investment in next generation technologies that have been tested elsewhere. This should include adopting technology neutrality, where different technology options are available. We provide below specific policy recommendations in the context of leveraging the JT Gigabit network and encouraging the rollout of mobile next generation technologies such as 5G;

...

3. *Adopt policies to incentivise mobile network sharing and rollout of mobile next generation technologies such as 5G across relevant Government departments and CICRA. The Government (and CICRA where appropriate) should use the following levers:*

a. ensure, through regulation, efficient and effective access to spectrum, and high-capacity Gigabit fibre backhaul;

...

Policy principle 2

Promote retail competition (not network competition) as the most effective way of delivering the benefits of next generation connectivity to consumers and businesses

7. *CICRA should ensure that JT supplies other operators with wholesale access to the Gigabit network on a fair, reasonable and non-discriminatory (FRAND) basis, and that wholesale access seekers get access to wholesale products, which allow access seekers to compete based on differentiated retail services.*

a. This FRAND access should include fibre backhaul for mobile services.

States of Guernsey

6.6 The States of Guernsey paper, “The future of Telecoms” explicitly states with regards to 5G backhaul:

CICRA to consider the regulation of the interconnect cost of fibre backhaul to 5G sites as sites and backhaul transmission are shared. In this way no operator can enjoy a commercial advantage when it comes to rolling out 5G to areas where fibre is scarce.

Conclusion

6.7 The Authority considers that both of the Government policies focus on the availability of backhaul and provide guidance to the Authority on how it should consider its approach to that market. With this clear direction from both Governments, the Authority must ensure that fibre backhaul for mobile services is made available. Both policies require the Authority to consider either FRAND access or to consider the costs of backhaul services.

Item 2 – Requirement for Backhaul Products

6.8 In addition to the guidance from the States of Jersey and Guernsey, the Authority also considers the request from Airtel to set a specific requirement for backhaul services. Whilst Airtel stands out from all of the respondents as having the most demand for backhaul services, this must be

considered in the context that, as a mobile only operator, it is not in a position to self-provide backhaul services. Analysis of the responses highlights two dynamics occurring in the market.

- 6.9 First, the mobile network operators who effectively are able to provide themselves with the backhaul services do not identify a problem in the market.
- 6.10 Second, the third mobile network operator which does not have a fixed network has identified what it considers to be serious issues with the backhaul services that are available to it both in terms of the product and the price that is it is made available.

Conclusion

- 6.11 At this point in time (with increasing demands for data on 4G services and the introduction of 5G within the next few years) the Authority considers that it has a significant cause for concern with regards to the operation of this market, especially in ensuring that Airtel is able to compete against JT and Sure equally and efficiently. Fundamentally, this means fair and reasonable access to the products that it requires for the backhaul of traffic on its networks.

Item 3 - Market Dominance

- 6.12 The bandwidth products, provided over a fixed network (either copper or fibre), are leased line services. In its last review of the leased line market in 2014 the Authority found that Sure Guernsey held significant market power on the wholesale market for on-island leased lines in Guernsey and JT Jersey held significant market power on the wholesale market for on-island leased lines in Jersey.
- 6.13 In order to address the backhaul market the Authority is not minded to undertake a full market review of the leased line market at this point in time. Whilst a full market review could be considered as both appropriate and timely, the Authority does not believe that at this point in time it would be a proportionate response to address the issues being faced in a sub-market of the leased line market. The Authority therefore seeks a solution that is purely focussed on the requirements of wireless network operators.

Conclusion

- 6.14 The Authority has encouraged the fixed network operators, who have also been found to be dominant in the 2014 leased line market review, to engage with its wholesale customers with a view to developing new backhaul services specifically for wireless network operators.

6.15 As the fixed network operators and the wireless network operators have not concluded any suitable solutions then a further option is available to the Authority, which is to seek to carry out a market review of the leased lines market in the Channel Islands.

Item 4 - Potential Remedies

6.16 Airtel has informed the Authority that it is seeking backhaul leased lines with specific speeds and quality of service. These might be different products from those currently offered by the leased line service providers and might include, for example, less functionality which should result in a lower cost base for the service provider in turn leading to the cost saving being passed through to the operator purchasing the leased line.

6.17 Airtel has been clear that it is the current pricing, as well as lack of available of service at certain speeds, that has resulted in it operating its business on only a small percentage of base stations being supplied with fibre based backhaul. A significant reduction in the price point would result in Airtel moving its traffic from its current microwave based solution to fibre leased lines. This would result in a backhaul network that would allow Airtel to compete against the other two mobile networks on an equivalent basis but would also allow it to provide the products and services which it states it has not been able to launch to the mass market.

6.18 The Authority does not anticipate that any 'new products' will be made generally available but should be available to any operator that holds a licence for the provision of a wireless service. For the avoidance of doubt this product should not be limited to only mobile network operators but should include other wireless network operators who could require backhaul services to aggregate and transport its traffic.

6.19 The result should be that there is availability of leased line services that meet the specific requirement of the wireless network operators and are available at a suitable price point.

6.20 In addition, the Authority considers that this is a revenue generating opportunity for the suppliers of leased lines / backhaul services. This will not result in the cannibalisation of existing products or revenues. Instead, it will create an opportunity for Airtel, and other wireless based service providers, to purchase leased line products which would result in additional revenues for the service supplier. Thus advantages can be seen for all operators.

6.21 An alternative to fixed network operators providing leased line backhaul solutions to meet the requirements of wireless network operators would be to allow those operators to be able to construct their own networks to meet their backhaul requirements. As these operators would be seeking to construct fibre based backhaul solutions then the option that the Authority

considers could be best placed to meet the requirements of the operators would be a dark fibre solution or duct access.

- 6.22 By fixed network operators making dark fibre available, wireless network operators would be in a position to construct their core networks and backhaul routes so that they are dimensioned to meet their traffic and quality of service requirements of the wireless service suppliers.

Conclusion

- 6.23 As noted above, the States of Jersey and States of Guernsey Policy issued in January 2018 and June 2018 respectively sought to ensure that there are differentiated broadband products in the market. Subsequent to those policies being issued, Airtel has made a specific and reasonable request for backhaul solutions. Primarily by reference to the States' policies and the specific backhaul needs identified by Airtel, the Authority considers that there is a requirement to ensure that alternative backhaul solutions are developed by the fixed network operators.

- 6.24 To formally progress the discussions on backhaul solutions the Authority commenced its consultation review in October 2018. Despite the time that has passed since the States' policies and the Call for Information were issued, the Authority is still not aware of any agreed way forward between the operators. In the Authority's opinion, the operators have failed to engage in a meaningful manner, which would have resulted in an agreed backhaul solution being concluded without the need for regulatory intervention. This leaves the Authority with no alternative other than to intervene and potentially direct JT Jersey and Sure Guernsey to implement new wireless backhaul solutions.

- 6.25 In view of this lack of progress, the Authority is of the provisional view that, absent a voluntary agreement between operators to develop an appropriate backhaul solution for wireless network operators, the fixed network operators (i.e. JT Jersey and Sure Guernsey) should be directed to develop two solutions – (1) a new specific leased line wireless backhaul solution, and (2) a wireless backhaul solution utilising dark fibre.

- 6.26 As regards the first solution, being a new specific leased line wireless backhaul solution, this product needs to be in line with Airtel's (or other operators) requirements both technically and financially. The Authority considers that it is appropriate for the Authority to support the requirements of all operators and to direct the fixed network operators to develop specific leased line products only for the use of licensed wireless network operators. The Authority views this as a relatively quick, short term solution that would not only support operators for their immediate requirements but the governments of both Islands' strategic policies for the

availability of backhaul and future 5G services, which could in turn lead to increased revenues for the incumbent operators in both Islands

- 6.27 The Authority's current view is that all operators should be in a position to agree the technical requirements of such a solution in a short period of time. Further, the Authority is also presently of the opinion that the price should be in line with what is currently available to other telecommunications operators in the UK and as such the Authority would expect JT Jersey and Sure Guernsey to demonstrate why this could not be achieved via transparent cost justification. The Authority would also expect to see this product available in both Islands at the same price and technical capability.
- 6.28 As regards the second solution, it is the view of the Authority that given that there is availability of (albeit limited) dark fibre in Jersey from sources other than the incumbent and to enable wireless operators a choice between a managed or unmanaged backhaul solution, both Sure Guernsey and JT Jersey should commence work on developing a Dark Fibre solution for the long term benefit of OLOs and the end consumer. This once again supports the governments of both Islands' strategic policies and specific requirements, as well as a reasonable request from Airtel.
- 6.29 The Authority is currently of the opinion that all operators should be in a position to agree the technical requirements and operational management of such a solution in a short period of time. The Authority's provisional view is that the price should be in line with what is currently available to other telecommunications operators in the UK and the as such Authority would expect JT Jersey and Sure Guernsey to demonstrate why this could not be achieved via transparent cost justification. The Authority would expect to see this product available in both Islands at the same price and technical capability. The Authority is also of the view that this solution should be delivered more cost effectively than a leased line solution.

7. Draft Decision

- 7.1 For purposes of clarification, the Authority considers the term “Network Access” as applied in conditions 36 and 34 of the licence of JT Jersey and Sure Guernsey respectively to include “backhaul”.
- 7.2 The JCRA is of the provisional view that it should issue the following direction under conditions 34 and 36 of the licence of JT Jersey.
- 7.3 The GCRA is of the provisional that it should issue the following direction under conditions 32 and 34 of the licence of Sure Guernsey, and under section 10(2)(c) of the Telecommunications (Bailiwick of Guernsey) Law 2001.

Proposed Direction

- 7.4 Within 28 days of this Direction coming into force, the Authority requires that JT Jersey and Sure Guernsey provide their respective solution for backhaul for a leased line including:
- a) the basis upon which pricing of the backhaul solution will be set, such evidence to include but not be limited to price comparisons with telecommunication operators in the UK; and
 - b) written confirmation from operators to the Authority that these backhaul service will meet their technical requirements.
- 7.5 Within 90 days of this direction coming into force, the Authority requires that JT Jersey and Sure Guernsey provide their respective solutions for backhaul utilising Dark Fibre including:
- a) the basis upon which pricing of the backhaul solution will be set, such evidence to include but not be limited to price comparisons with telecommunication operators in the UK; and
 - b) written confirmation from operators to the Authority that this backhaul service will meet their technical requirements.

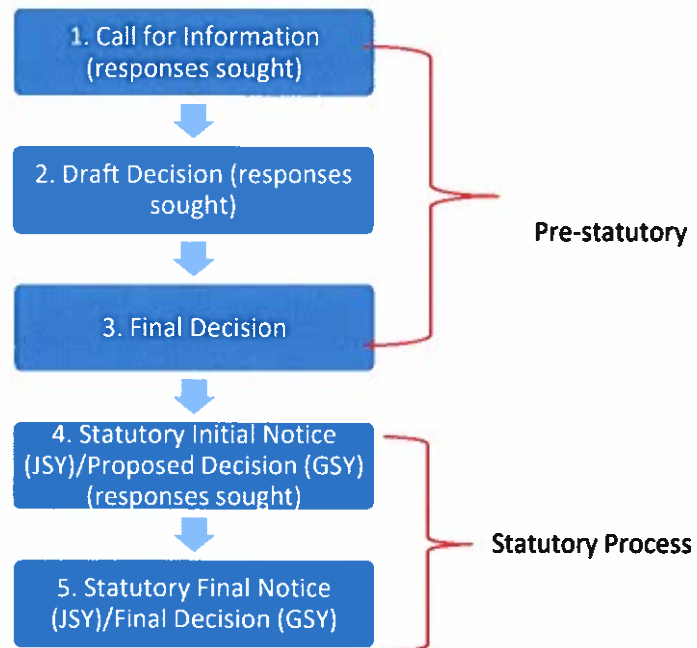
8. Summary and Next Steps

Summary

- 8.1 Stakeholders are invited to respond to the non-statutory Draft Decision. In addition, respondents are invited to raise any other matters they consider relevant in the present context when responding to this Draft Decision.
- 8.2 The Authority will consider all of the responses received, which will inform its considerations on the matters set out in this Draft Decision.

Consultation Process

- 8.3 The Authority has recently introduced a revised process for consultations. The Information Notice, CICRA 18/29 “Regulatory Consultation Process” published in July 2018 outlines the new process to be undertaken before carrying out certain regulatory functions in accordance with the relevant statutory process. This process is set out below in diagrammatical form:



- 8.4 Under the new process there is a new non-statutory process which is to be undertaken prior to the statutory process. The non-statutory process consists of a Call for Information, a Draft Decision and a Final Decision. Responses are sought from stakeholders at the Call for

Information and Draft Decision stage, following which a Final Decision is issued. This Draft Decision is thus the second stage of the pre-statutory process.

- 8.5 Before carrying out certain regulatory functions, following the non-statutory process the appropriate Jersey and Guernsey statutory process is followed.⁹ In Jersey a decision directing a person to provide network access in accordance with its licence condition requires the statutory process to be followed as it is a specified regulatory function. The same decision however does not require a statutory process to be undertaken in Guernsey as it is not a decision which requires a formal process to be undertaken in accordance with the Guernsey Telecoms Law.
- 8.6 Accordingly, in Jersey the Authority will undertake the statutory process on the backhaul service review. Whilst the Authority considers any decision made as part of the pre-statutory process to be the starting point for the statutory process and as a statement of its expectations, the Pre-Statutory Final Decision (i.e. stage 3 of the above diagram) is not binding where there is a requirement to undertake a statutory process. After the non-statutory process has been completed, the statutory process will commence by issuing a Statutory Initial Notice in Jersey. Responses are sought at this stage, following which a Statutory Final Notice is issued in Jersey, such decision being final and binding.
- 8.7 In Guernsey, as there is no requirement to follow the statutory process, the Pre-Statutory Final Decision (i.e. stage 3 of the above diagram) will be the last stage of the consultation process, and will be final and binding.

⁹ See Information Notice CICRA 18/29 "Regulatory Consultation Process", July 2018

Annex 1 – Legal and Regulatory Framework

JERSEY

Legal background

1. The Telecommunications (Jersey) Law 2002¹⁰ (the Jersey Telecoms Law) provides that the JCRA may include in telecommunications licences such conditions as the JCRA considers necessary or desirable for reasons including but not limited to those set out in article 16 of the Jersey Telecoms Law.
2. Part 3 of the Jersey Telecoms Law sets out the duties of the Minister and the JCRA, and obliges them to protect and further the interests of telecommunications users within Jersey by, wherever appropriate, promoting competition.¹¹ Part 3 also sets out general objectives that the JCRA should take into account, including the need to promote efficiency, economy and effectiveness, and to further the economic interests of Jersey.
3. The Jersey Telecoms Law¹² specifically provides that the JCRA may include in any licence, conditions that are:
 - Intended to prevent or reduce anti-competitive behaviour¹³;
 - Relate to, or imposing requirements about, competition in relation to telecommunications services, telecommunication systems, apparatus and telecommunication equipment.¹⁴

Regulatory Framework

4. Condition 34.1(c) of JT's licence is designed to protect fair competition in the markets in which JT operates, and provides as follows:

The Licensee shall: ...

(c) comply with any direction issued by the JCRA for the purpose of preventing any market abuse or any practice or arrangement that has the object or effect of preventing, restricting or distorting competition in the establishment, operation and maintenance of Licensed Telecommunications Systems or the provision of Telecommunications Services.

¹⁰ Telecommunications (Jersey) Law 2002

¹¹ Part 3, Article 7(2)(a)

¹² The definition of a position of SMP / dominance and the abuse of a position of SMP / dominance is not explicit in the Telecoms Law. However, the Competition (Jersey) Law 2005 sets out the States' approach to defining abuse of a dominant position and anti-competitive practice.

¹³ Part 5, Article 16 (1) (i)

¹⁴ Part 5, Article 16 (2) (4) (a)

5. This condition allows the JCRA to give directions to JT, including in relation to the services it provides.
6. Condition 36 of JT's licence states as follows:
 - 36.1 *The Licensee shall, to the extent requested by another OLO, negotiate with that OLO with a view to concluding an agreement (or an amendment to an existing agreement) for Network Access.*
 - 36.2 *Where an OLO reasonably requests in writing Network Access, the Licensee shall provide that Network Access. The Licensee shall also provide such Network Access as the JCRA may from time to time direct.*
 - 36.3 *The provision of Network Access shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as the JCRA may from time to time direct.*
 - 36.4 *Where the Licensee acquires information from another OLO before, during or after the process of negotiating Network Access and where such information is acquired in confidence, in connection with and solely for the purpose of such negotiations or arrangements, the Licensee shall use that information solely for the purpose for which it was supplied and respect at all times the confidentiality of information transmitted or stored. Such information shall not be passed on to any other party for whom such information could provide a competitive advantage. This does not apply to the passing of information to the JCRA where the JCRA requires that information in order to carry out its functions.*
 - 36.5 *The Licensee shall comply with any direction the JCRA may make from time to time under this Condition.*
7. This condition therefore allows the JCRA to direct JT to provide such Network Access as the JCRA may determine from time to time. For the purposes of clarification, the JCRA considers the term "Network Access" to include backhaul.

GUERNSEY

Legal background

8. Section 5(1) of The Telecommunications (Bailiwick of Guernsey) Law, 2001 (the **Guernsey Telecoms Law**) provides that the GCRA may include in licences such conditions as they consider appropriate, having regard to objectives set out in Section 2 of the Regulation Law, and the enforcement of the Regulation Law and the Guernsey Telecoms Law.
9. The Regulation of Utilities (Bailiwick of Guernsey) Law 2001 (the **Utilities Law**) sets out the general duties which the States and the Guernsey Competition and Regulatory Authority (GCRA) must take into account in exercising their functions.¹⁵ These include the requirement to protect consumers and other users in respect of the prices charged for, and the quality, services levels, permanence and variety of, utility services; to ensure that utility services are

¹⁵ Section 2 of the Regulation of Utilities Law

provided in a way which will best contribute to economic and social development; and to introduce, maintain and promote effective and sustainable competition¹⁶.

10. The Guernsey Telecoms Law¹⁷ specifically provides that the GCRA may include in any licence conditions that are:

- Intended to prevent and control anti-competitive behaviour¹⁸; and
- Regulate the price premiums and discounts that may be charged or (as the case may be) allowed by a licensee which has a position of SMP in a relevant market¹⁹.

11. Further, the Guernsey Telecoms Law provides that the GCRA may direct that any licensee whom it determines has a dominant position in a relevant market shall comply, for such period as may be specified by the GCRA, with, *inter alia*, the requirement that the licensee shall provide interconnection or access on terms, conditions and charges that are transparent and cost-orientated having regard to the need to promote efficient and sustainable competition and maximise consumer benefits.²⁰ Backhaul is a form of access and thus this provision allows the GCRA to give directions to Sure.

Regulatory Framework

12. Condition 32.1(b) of Sure's licence is designed to protect fair competition in the markets in which Sure operates, and provides as follows:

the Licensee shall: ...

(b) comply with any direction issued by the GCRA for the purpose of preventing any practice or arrangement that has the object or effect of preventing, restricting or distorting competition in the establishment, operation and maintenance of Telecommunications Networks or the provision of Telecommunications Services.

13. This condition allows the GCRA to give directions to Sure, including in relation to the services it provides.

14. Condition 34 of Sure's licence states as follows:

¹⁶ These broad objectives were maintained in the transfer of functions and responsibilities to GCRA, as set out in the Guernsey Competition and Regulatory Authority Ordinance, 2012

¹⁷ The definition of a position of SMP / dominance and abuse of a position of SMP / dominance is not explicit in the Guernsey Telecoms Law. However, the Competition (Guernsey) Ordinance 2012 sets out the States' approach to defining abuse of a position of SMP / dominance and anti-competitive practice.

¹⁸ Section 5(1)(c) of the Guernsey Telecoms Law

¹⁹ Section 5(1)(f) of the Guernsey Telecoms Law

²⁰ Section 10(2)(c) of the Guernsey Telecoms Law

- 34.1 *The Licensee shall, to the extent requested by another OLO, negotiate with that OLO with a view to concluding an agreement (or an amendment to an existing agreement) for Network Access.*
 - 34.2 *Where an OLO reasonably requests in writing Network Access, the Licensee shall provide that Network Access. The Licensee shall also provide such Network Access as the GCRA may from time to time direct.*
 - 34.3 *The provision of Network Access shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as the GCRA may from time to time direct.*
 - 34.4 *Where the Licensee acquires information from another OLO before, during or after the process of negotiating Network Access and where such information is acquired in confidence, in connection with and solely for the purpose of such negotiations or arrangements, the Licensee shall use that information solely for the purpose for which it was supplied and respect at all times the confidentiality of information transmitted or stored. Such information shall not be passed on to any other party for whom such information could provide a competitive advantage. This does not apply to the passing of information to the GCRA where the GCRA requires that information in order to carry out its functions.*
 - 34.5 *The Licensee shall comply with any direction the GCRA may make from time to time under this Condition.*
15. This condition therefore allows the GCRA to direct Sure to provide such Network Access as the GCRA may determine from time to time. For the purposes of clarification, the GCRA considers the term "Network Access" to include backhaul.