



**JT's Non- Confidential
Response to CICRA's
Draft Decision – Backhaul**

4th July 2019 CICRA 19/26

1. Introduction

- 1.1 This response is made by JT (Jersey) Limited and JT Guernsey Limited (“JT”) in response to CICRA’s Draft Decision to introduce leased line services / dark fibre to meet the specific requirements of wireless network operators in the Channel Islands.
- 1.2 JT supports a Channel Island approach to new product and pricing in this response.

2. Proposed introduction of leased line services / dark fibre

- 2.1 CICRA issued a call for information in October 2018 to gather opinion on the requirement to provide specific backhaul services to enable operators who do not have access to their own fixed infrastructure to enable them to compete on an equal footing with operators of mobile businesses that own and control the fixed infrastructure necessary to support backhaul. On 29th May 2019 CICRA issued a draft decision:-

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.*

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.*

2.2 In setting out its reasoning in the draft decision CICRA made the following points:-

- a. The evidence put forward by Airtel suggests that the current portfolio of leased line services is not sufficient to allow it to dimension its backhaul network efficiently.
- b. The future of 4G and 5G will be reliant on fibre networks for the backhauling of mobile traffic and its therefore important that any proposed solutions should be scoped to meet the needs of 4G as well as future 5G services.
- c. All wireless operators should be able to obtain fibre solutions on a fair and reasonable basis which should provide equable pricing and products for backhaul solutions.

2.3 JT would like CICRA to consider the following points in response to the draft decision.

3. Backhaul Products

3.1 JT is currently consulting with industry on its Jersey on-island wholesale private circuit portfolio (a copy of the call for information is included at Appendix A). The call for information specifically includes questions that relate to mobile backhaul namely:-

Q7. Do you have any Mobile Backhaul Specific requirements outside of JT's standard ethernet options?

Q8. Do you have any Mobile Fronthaul Specific requirements outside of JT's standard ethernet options?

Q9. Are you happy with the current offers, or would you like to see any changes to the portfolio?

3.2 JT has requested that responses to these questions are provided by 5th July 2019. At the time of writing, JT had received one response to its CFI from Airtel which was received on 26th June 2019 (included at confidential Appendix C). This is the first constructive feedback JT has had on the subject of backhaul. At 5.34 of CICRA's consultation it states 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 response to its requests.”

- 3.3 JT do not agree with that statement and draw CICRA’s attention to Appendix B where we include the correspondence we had with Airtel prior to their response to the JT CFI. We do not believe the limited correspondence provided at Appendix B is sufficient for JT to create any new products. Additionally, JT will be required to consider the responses from all of its wholesale customers before considering new products or scoping out any changes required to current products.
- 3.4 Sure Guernsey has carried out a similar CFI to the one issued by JT and at the time of this response no feedback has been provided to JT even though we have requested an update on several occasions (correspondence attached at Appendix D).
- 3.5 JT’s own mobile network team has advised that they are still in discussion with 5G vendors on what the specific backhaul requirements will be for 5G, as standards have not yet been finalised. However, they anticipate that standard point-to-point leased lines are likely to be suitable for its 5G backhaul connectivity needs. The capacity requirements are likely to be higher than current 4G requirements and they anticipate that high capacity leased lines (1Gbps - 10Gbps) or point-to-point microwave solution would also be suitable.
- 3.6 JT has a portfolio of on-island Ethernet leased lines based on industry standardised interfaces (10Mbit, 100Mbit, 1Gbit and 10Gbit). Airtel’s response to JT’s CFI requests low speed leased lines of 10Mbps up to 100Mbps in increments of 10Mb and then in 50Mb increments up to 500Mbps. JT question the validity of creating up to 20 new product variants when the majority of these speeds will never be ordered.
- 3.7 We believe that Airtel’s Jersey requirements may be catered for by the launch of a FTTH 1Gbps bitstream product which would allow them to set their own speed of service and provide access to a lower cost flexible speed solution in Jersey. As signalled previously, through the broadband roadmap, JT is investigating the option of a 10Gbps fibre service..

3.8 In Guernsey, we assume that any new connectivity products created by Sure Guernsey for backhaul will need to rely on a point-to-point fibre, in light of there being no Sure fibre broadband solutions that can be relied upon. We note that Sure state in their response to question 5 that they believe *“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.”* However, no detail is provided so JT is unsure what this alternative may be.

3.9 At 5.36 on page 13 CICRA states:-

“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.

For the avoidance of doubt, this Draft Decision is focussed on the requirement of fit for purpose cost effective backhaul solutions for wireless 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”

This final statement seems to be at odds with the draft decision which is proposing that JT Jersey and Sure Guernsey provide dark fibre solutions as well as a range of fibre based leased line product together with the basis on how pricing will be set and confirmation from operators that the proposed services will meet their technical requirements.

3.10 As demonstrated by JT’s CFI, it has already started the process of consulting with operators on their specific backhaul requirements. Once all responses are received JT will then arrange to meet with operators to continue the discussion and identify what specific products are required. It will then be in a position to cost up the new products proposed.

4. Backhaul Pricing

- 4.1 Responses to CICRA's CFI demonstrates that operators use a mix of fibre leased lines and microwave links to connect their mobile base stations. It is JT's opinion that decisions on whether to choose microwave over fibre connectivity will be down to the commercials of each solution as well as future capacity needs. It would therefore appear to be the case that if fibre was deemed by CICRA to be the sole means of providing backhaul connectivity it must be comparable in price with the cost of microwave links to make it a viable alternative for mobile operators.
- 4.2 We do however believe that microwave will still be a viable solution for 5G backhaul where no fibre network currently exists and the dig costs are commercially prohibitive (in light of mobile sites sometimes being in the middle of fields or nowhere near existing telecom duct infrastructure) or not possible due to dig embargoes. Microwave is a complementary technology to leased lines and in some scenarios, microwave is more cost effective and easier to deploy than leased lines.
- 4.3 JT believe it would be unfair to enforce backhaul pricing that didn't allow an operator to make a return on their investment.
- 4.4 The draft decision states that Airtel is reliant on Sure Guernsey for leased lines in Guernsey. This is not correct.

4.5 Pricing Information Included in the Draft Decision

JT does not agree with the pricing detailed in Airtel's response and have therefore re-created the table included at page 10 of the Draft Decision with pricing taken from JT (Jersey) Limited's wholesale price list and Sure Guernsey's wholesale price list.

Table from consultation provided 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		
[redacted]	[redacted]	[redacted]

*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

[redacted].

Pricing Table 1 – Source: JT (Jersey) Limited and Sure Guernsey published pricing from wholesale websites

Service	Exchange Area	Jersey (£) Per Annum	Guernsey (£) Per Annum
10 Mbps	same exchange		
10 Mbps	different exchange		
100 Mbps	same exchange		
100 Mbps	different exchange		
1 Gbps	same exchange		
1 Gbps	different exchange		
10 Gbps	any exchange		

All Jersey prices based are based on the JT over 300m wholesale price (price reduction available for less than 300m). Guernsey prices show Sure wholesale within exchange and out of exchange pricing

5. Summary

- 5.1 JT anticipates that higher speed connectivity (1 Gbps and 10 Gbps) will be required for 5G backhaul and there is a marked difference between the current Jersey and Guernsey pricing for the same leased line products. JT agree that it is appropriate for CICRA to adopt a pan-Channel Island approach to new backhaul solutions both in terms of the technical aspects and pricing.
- 5.2 Microwave will still be a suitable means of backhaul connectivity and is a complementary technology to leased lines. In some scenarios microwave is more cost effective and easier to deploy than leased lines to remote mobile sites.
- 5.3 JT is continuing its process of consulting with operators on their specific backhaul requirements. Once all responses are received JT will then arrange to meet with operators to continue the discussion to identify what specific products are required.
- 5.4 JT's mobile team are in discussion with 5G vendors on what the specific backhaul / fronthaul requirements will be for 5G as standards have not yet been finalised. The output of these discussions between operators and mobile network vendors will inform product requirements.
- 5.5 A 1 Gbps or 10 Gbps bitstream product could be used as a backhaul solution, providing access to a lower cost flexible speed solution in Jersey.

Appendix A – JT’s Call for Information on Private Circuits



Call for Inputs on JT Wholesale Private Circuit Portfolio

JT is reviewing its Jersey on-island wholesale private circuit portfolio and as part of this we would like to gain feedback from our wholesale customers on their current and future requirements. The review will cover JT’s current wholesale private circuit services, together with any requirements for new or replacement services.

We would be grateful if you could answer the questions below. If you have any additional points to make outside of the questions asked we would be grateful if you could add this to the end of the document.

Please send your answers to this call for inputs to Grahame Looby, Carrier Account Manager

grahame.looby@jtglobal.com

SDH Delivered Services

These services have been in JT’s wholesale private circuit portfolio for many years and are offered at speeds of 2 Mb, 34 Mb/45 Mb and 155 Mb with the vast majority provided as 2 Mb services (commonly referred to as Megaline). JT has not had any orders for new SDH services in the last 24 months only service disconnections.

The JT core network equipment that supports these services will be end of life in 2020. We now need to understand if alternatives are required to deliver a replacement service.

Additionally, JT’s off-island carrier interconnect partner has provided us with notice of stop sell and we expect an end of life notice within the next 12 months.

Q1. Do you have a need for a replacement on-island 2Mb service and would you consider an ethernet service to be a suitable replacement? If not please suggest other alternatives.

Fibre Link - Ethernet Delivered Services

JT currently delivers Ethernet circuits as point-point or through our core network at the set bandwidths of 10 Mb, 100 Mb, 1 Gb and 10 Gb.

The services are delivered on dedicated fibre to the A end and depending on B end either provided point-point or through JT's core network.

The services are provided with standard or jumbo frame MTU sizes and offer no QoS.

The services are predominately provided as under 300 meters or over 300 meters, depending on the fibre duct route distance.

Q2. Are you happy with the current Ethernet offers, or would you like to see any changes to portfolio?

Q3. JT currently offer on-island fibre link services in under 300 m and over 300 m distance between A and B end of the circuit. Do you want JT to continue to offer these options ?

Issued: 22/05/2019

Fibre Channel Services

These are specialist services that are delivered using bespoke NTE (Network terminating Equipment) to provide high capacity Fibre Channel protocol services at fixed bandwidths of 1 Gbps, 2 Gbps, 4 Gbps and 8 Gbps.

Q4. Do you have any requirements that are not served by the current portfolio ?

Diverse Routed Services

JT provide options for logical diverse routing through the JT core network, or physically diverse routing into customers premises over the JT fibre access network.

Q5. Do you have any requirements that are not served by the current portfolio ? If yes please provide details of what changes to portfolio you require ?

Q6. Would you consider an unprotected point-point only service viable?

Mobile Backhaul

JT provide mobile backhaul connectivity using existing SDH and Ethernet private circuits.

Q7. Do you have any Mobile Backhaul Specific requirements outside of JT's standard ethernet options?

Q8. Do you have any Mobile Fronthaul Specific requirements outside of JT's standard ethernet options?

Q9. Are you happy with the current offers, or would you like to see any changes to the portfolio?

Issued: 22/05/2019

Delivery and Support of Services

Wholesale private circuits are installed within a prescribed delivery period, subject to line plant availability. There is currently no formal option to provide a shortened or fast-tracked delivery option. A fast track delivery is currently accommodated during the order process on an ad hoc basis only if resources can be secured in the timescales.

Current services are delivered point to point or through JT's core network terminating on standalone NTE with no capability of being monitored for both availability, performance and fault finding.

Q7. Do you have a requirement for a formalised chargeable expedite facility ?

Q8. Do you have a requirement for a managed service option for wholesale private circuits? If so please provide details.

If you have any other questions or feedback please provide this here:-