

Appendix 2: Decisions on Recommendations from the Second of Two Rounds of Public Consultation on the *Determination: Domestic Retail Fixed Telephony and Fixed Broadband Market Definitions*

The following summarizes the comments and recommendations received from the public consultation, held on May 13th to July 1st, 2024, on the *Determination: Domestic Retail Fixed Telephony and Fixed Broadband Market Definitions* (the Determination) and the decisions made by the Telecommunications Authority of Trinidad and Tobago (the Authority).

The Authority wishes to express its appreciation to the following stakeholders for responding to the consultation:

1. Columbus Communications Trinidad Limited (CCTL)
2. Digicel (Trinidad & Tobago) Limited (Digicel)
3. Telecommunications Services of Trinidad and Tobago (TSTT)

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1	1	Introduction	CCTL	<p>The views expressed herein are not exhaustive. Failure to address any issue in this response does not in any way indicate acceptance, agreement or relinquishing of Columbus Communications Trinidad Limited's (CCTL's) rights.</p> <p>In outlining the outcomes for this market definition exercise, the Telecommunication Authority of Trinidad and Tobago (the Authority) states, "In addition to facilitating the introduction of ex ante price regulation, where appropriate, and serving as a potential starting</p>		<p>The Authority thanks CCTL for its comments and recommendations on the <i>Determination: Domestic Retail Fixed Telephony and Fixed Broadband Market Definitions</i> (the Determination).</p> <p>The Authority notes CCTL's comments on the impact of market definition on market monitoring of over-the-top (OTT) voice services and responds as follows:</p>

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				<p>point for the market definition used for other ex post investigations, any markets that are defined will also provide the Authority with a reference point for monitoring competitive dynamics in retail markets, e.g., during regular monitoring of market dynamics and early identification of potential issues with the functioning of a market, once that market has been defined (our emphasis).”</p> <p>This statement suggests that markets that are not defined, such as that for OTT voice, would not qualify for regular monitoring of market dynamics to identify market issues. Considering the overwhelming evidence of the impact of OTT services on the market for traditional fixed voice services, highlighted by respondents to the previous round of consultation and supported by quantitative and qualitative information shared by the Authority in this process, CCTL is very concerned with the decision that the level of substitution between fixed voice service and OTT voice is partial, not significant and therefore OTT voice services are not included in the product market for domestic fixed voice services.</p> <p>This decision means that the imbalance in regulatory treatment of substitutable voice services provided by traditional service providers (TSPs) and OTTs is not</p>		<p>Firstly, the Authority acknowledges the importance of undertaking market definition assessments to ex ante price regulation and ex post investigations, in concurrence with the Telecommunications Act, Chap. 47:31 (the Act), the Concession for the Operation of a Public Telecommunications Network and Provision of Public Telecommunications Services and international best practices.</p> <p>In light of the importance of this exercise, the Authority used credible methodologies to conduct this market definition exercise and premised this exercise upon a diverse range of datasets. Based on the evidence reviewed, it was found that OTT services do not form part of the same market, as they are not the primary substitute for fixed telephony services by consumers at this time.</p> <p>However, please be advised that market definition is not the only tool used in assessing or monitoring the competitive dynamics in the telecommunications sector. The Authority engages in diverse approaches to market regulation, which include benchmarking studies, economic tests,</p>

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				<p>being addressed. Failure to address this imbalance will result in a continuing trend in the decline in fixed voice revenues, flat or declining revenues for traditional service providers, and a gap in funds available for network investments.</p>		<p>econometric analysis, network modelling, market surveys or analyses, peer reviews and international and regional agreements. Therefore, the synergies or impact of OTT services in the domestic telecommunications markets can be explored using alternative mechanisms.</p> <p>Regarding the operator's concern that "OTT voice services are not included in the product market for domestic fixed voice services", CCTL is advised that the Authority used an established and robust approach to defining markets, which includes evidence derived from the TATT-KCL Fixed Customer Survey, annual market data, operator quantitative data submission and qualitative request for information (RFI) submissions, international benchmarks, and other market research.</p> <p>Currently, the evidence available to the Authority suggests that there is insufficient demand-side and no supply-side substitutability between OTT services and fixed voice services, at this time.</p>

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						<p>In concurrence with the revised <i>European Commission notice on the definition of the relevant market</i>, the relevant scope of services is determined by including the most used substitute in an iterative process and in decreasing order, until a hypothetical monopolist (HM) can profitably increase its tariffs. The Authority considers that an HM providing both fixed and mobile telephony services may be able to retain a significant portion of customers in the event of a small significant non-transitory increase in price. (SSNIP), and sustainably increase its prices. In the data gathered from the TATT-KCL Fixed Customer Survey, respondents indicated that, if their fixed line service price were increased by 5% to 10%, 25% of customers would do nothing; 15% of them would make fewer calls but make mobile calls instead, while 6.7% of respondents would make fewer calls or used OTT calls or messaging instead. This evidence, of limited customer switching between OTT voice and fixed voice services indicates insufficient demand-side substitutability, and supports</p>

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						<p>the non-inclusion of OTT services in the fixed voice market at this time.</p> <p>The above evidence strongly suggests the non-inclusion of OTTs in the fixed voice market at this time. The Authority proposes that the fixed voice market definition will be reviewed in the next three to five years. This review will be in addition to the performance of the Authority's ongoing regulatory functions and systems wherein domestic competition dynamics in the telecommunications sector (including developments in OTT services) are assessed.</p>
2	1	Entire Document	Digicel	<p>Digicel (Trinidad & Tobago) Limited ("Digicel") wishes to thank the Authority for the opportunity to provide its comments and recommendations on this consultation document.</p> <p>The views expressed herein are not exhaustive. Failure to address any issue in this response does not in any way indicate acceptance, agreement or relinquishing of Digicel's rights.</p>		The Authority is appreciative of Digicel's comments and recommendations given the importance of this Determination to the development and evolution of the domestic telecommunications markets.
3	1	Executive Summary	Digicel	Digicel welcomes the Authority's acknowledgement that <i>"the domestic retail fixed boundaries observed are</i>	Digicel recommends that the Authority recognise that OTT	The Authority acknowledges Digicel comments on the fixed boundaries specified

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		<p>The Authority considers that the domestic retail fixed market definitions in the Determination represent the present-day usage of the respective services by consumers of the respective telecommunications services in Trinidad and Tobago. The Authority is aware that the domestic retail fixed boundaries observed are</p>		<p><i>gradually evolving (or diminishing) and of the competitive dynamics in some markets that are in a state of volatility</i>".</p> <p>Given this acknowledgement, we are concerned that the Authority has chosen not to recognise the important impact of Over-The-Top ("OTT") voice services as a substitute for fixed voice services. This is despite the Authority:</p> <ol style="list-style-type: none"> 1. holding a view that the mobile voice service is a demand side substitute for fixed voice service; and 2. having already determined in its <i>Determination: Retail Domestic Mobile Telephony Market Definition (May 2024)</i> that OTT messaging, voice, and video call services fall within the retail domestic mobile service market and that the OTT voice service is a demand side substitute for mobile voice service. <p>In Digicel's respectful view, the logical connection between mobile services and OTT services must flow through to the Authority's consideration of the domestic retail fixed market with the inescapable conclusion being that if mobile voice services sit within the same market definition as domestic fixed telephony services then OTT voice services must also do so.</p>	<p>voice service is a partial substitute for fixed voice service and, consistent with its treatment of mobile voice service, considers the inclusion of OTT voice services in the same market as domestic fixed telephony services.</p>	<p>in this Determination and notes the operator's position on the inclusion of OTT voice services in the same market as domestic fixed telephony services.</p> <p>The Authority advises Digicel that these market boundaries were determined using a robust, methodological and internationally accepted approach. This approach also included evidence derived from domestic customers, providers of fixed telecommunications services and market datasets, including the TATT-KCL Fixed Customer Survey, annual market data, operators' quantitative data submissions and qualitative RFI submissions, international benchmarks, and other market research. Thus, the market boundaries established in the Determination are evidence based. (i.e., informed by a plethora of customer data, market data, operator submissions and international benchmarks), and multifaceted (taking into account multi-sided platforms, and a multiplicity of relevant and internationally accepted demand-side and</p>

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		<p><i>gradually evolving (or diminishing) and of the competitive dynamics in some markets that are in a state of volatility. However, the Determination captures the main, overarching and underlying, trends in the market, and as at a specific point in time (based on the date of the publication of</i></p>		<p>This position is further supported by the Authority's recognition in its <i>Determination: Retail Domestic Mobile Telephony Market Definition (May 2024)</i> that, in the face of a SSNIP in the price of domestic mobile services, 52.7% of respondents in the TATT-KCL Mobile Customer Survey "<i>indicated they would make fewer calls but use fixed Wi-Fi service to make OTT calls, thus showing a larger degree of substitutability</i>" [Emphasis added].¹</p> <p>Digicel submits it follows logically that if a customer is so willing to use its fixed Wi-Fi service to make OTT calls instead of mobile calls, then they would be just as likely to do the same in the face of a SSNIP in the price of a fixed call.</p> <p>Importantly, the Authority's position is not supported by its own decision to adopt "partial substitution" to justify the inclusion of mobile voice services when the Authority's own surveys show that OTT voice and messaging services are at least partial substitutes for both mobile and fixed voice services.</p>		<p>supply-side factors) to ensure balance and robustness.</p> <p>Additionally, regarding the comments and recommendations on OTT voice services as a substitute for fixed voice services, Digicel is advised that the nature of the relationship between fixed voice and mobile voice is asymmetric (as customers do not switch between fixed voice and mobile voice services in similar proportions or, vice versa, proportionately).</p> <p>Digicel is reminded of section 4.1.1.4 of the Determination which provides evidence that customers currently do not consider fixed voice and mobile voice services as complete or perfect demand-side substitutes.</p> <p>Further, the operator is also asked to review section 4.1.3 Conclusions of the <i>Determination: Retail Domestic Mobile Telephony Market Definition</i> and section 4.1.3 Preliminary Conclusions of the</p>

¹ *Determination: Retail Domestic Mobile Telephony Market Definition (May 2024)* at section 4.3.1.4

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		<p><i>this Determination</i>).</p> <p><i>The Authority has revised its position from version 0.1 of this Determination and has included mobile voice services as a part of the relevant domestic retail fixed voice market definition. This change was made considering the significant partial substitution</i></p>		<p>This is shown clearly in section 4.3.1.2 of the Consultation Document where the Authority states:</p> <p><i>“The Authority recognises that there has been a reduction in average call volumes per user for traditional fixed voice services (as shown in Figure 5). However, the potential correlation to or impact of OTT call/messaging services is less clear or mixed. The TATT-KCL Fixed Customer Survey reveals that most fixed Internet users (62.9%) reported that they use the Internet for making VoIP calls, while amongst OTT users, the 60% majority of respondents indicated that the availability of these applications/services do not affect their use of fixed call or broadband services; the minority of respondents (40%) considered that the use of OTT services has impacted their use of fixed call services. Of those who altered their fixed service usage, 48.2% stated that they had acquired fixed broadband services in order to access OTTs. This suggests that the majority of end users think of these services as complements and as partial substitutes” [Emphasis added].</i></p>		<p>Determination, which highlight the difference in substitution between fixed and mobile voice services and vice versa.</p> <p>Moreover, based on the evidence reviewed in the Determination, OTT services are not the primary substitute of fixed telephony services, as only a small proportion of fixed voice customers consider OTT services to be partial substitutes for fixed telephony services.</p> <p>This conclusion is supported by the TATT-KCL Fixed Customer Survey, which shows that respondents indicated that, if their fixed line service price were increased by 5% to 10%, 25% of them would do nothing; 15% would make fewer calls but use mobile calls instead; and 6.7% would make fewer calls or use OTT calls or messaging instead.</p> <p>This result is consistent with the annual market reports' service penetration results, which indicate that mobile voice service remains the most dissolved service, having the highest penetration rate (148 per 100</p>

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		<p><i>observed (i.e., the reduction in consumption of fixed voice services and the related increase in the consumption of mobile voice service on a call basis, as an alternative), which may constrain a hypothetical monopolist (HM) from profitably increasing the price of fixed voice and messaging services. This revision takes</i></p>				<p>inhabitants) of all telecommunications services (as of the third quarter of 2023).</p> <p>In concurrence with the revised <i>European Commission notice on the definition of the relevant market</i>, the Authority reminds operators that the relevant scope of services is determined by including the most used substitute in an iterative process and in decreasing order, until an HM can profitably increase its tariffs. The Authority considers that an HM providing both fixed and mobile telephony services may be able to retain a significant portion of customers in the event of a SSNIP and sustain a small increase in the price of either or both services collectively.</p> <p>The Determination also shows, in section 3.2.1.2 and Figure 5, the declining demand for fixed voice use. This is in accordance with the annual market review and the quarterly market update data for the period 2018 to 2023 which further show that fixed voice subscription declined from 317,500 in December 2018 to 311,000 in December 2023. Similar contractions in fixed voice</p>

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		<p><i>into consideration feedback received from stakeholders during consultation, additional operator metrics (including, significant customer switching on a calls or usage basis, constant service tariffs, and declining financial earnings) and international best practices. Specifically, the Authority notes the revised</i></p>				<p>service revenues (which fell from TT\$134.8 million to TT\$77 million), and changes in the Herfindahl-Hirschman index (HHI) (which fell from 4132.5 to 3271) further buttress the findings of the Determination. Specifically, this evidence supports the assertion that the fixed voice market is diminishing and is unlikely to form a relevant market of its own. Pursuant to the SSNIP test, the next primary substitute, where an HM may profitably increase its service tariffs, was observed to be mobile voice service.</p> <p>Furthermore, in section 4.3 of the Determination, the Authority has, in detail, treated with the impact of OTT services on the fixed voice market.</p> <p>Specifically, the evidence collated suggests that OTT services are not the main substitute of fixed voice services. Notably, consumer switching data, market data and operator submissions suggest there is insufficient demand-side and no supply-side substitutability between OTT services and fixed voice services. The TATT-KCL Fixed</p>

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		<p><i>European Commission Notice on the definition of the relevant market for the purposes of EU competition law, which permits taking into account usage metrics (partial substitution) and does not require the exclusive use of perfect substitution (access metrics) for market definitions.</i> [Emphasis added]</p>				<p>Customer Survey shows that less than 10% of consumers would switch to OTT services due to an increase in the price of fixed voice services.</p> <p>However, the degree of substitution with OTT services is significantly higher by mobile voice users (15%) than fixed customers (6.7%) at this time, as detailed in the <i>Determination of the Retail Domestic Mobile Telephony Market Definition</i> published on the Authority's website.</p> <p>The Authority notes that an HM providing both fixed and mobile telephony services may be able to retain a significant portion of customers in the event of a SSNIP and sustainably increase its prices, thereby precluding the inclusion of OTT services in the same product market as fixed telephony services at this time.</p>

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4	1	Executive Summary <i>Table 1 – List of services included in the relevant markets</i>	Digicel	<p>Digicel notes the inclusion of <i>Fixed Wireless Broadband Services</i> within the Product Scope for the <i>Standalone Fixed Broadband Services</i> market. The inclusion is repeated in Table 18 in section 5 of the Consultation Document.</p> <p>Fixed Wireless Broadband Services were not included in the Product Scope for this market in the first draft of the Consultation Document that was released on 6th September 2023.</p> <p>Fixed Wireless Broadband Services were also not defined or discussed in the Consultation Document and were not mentioned in the body of the conclusion in section 5. As such, it appears the inclusion of this service in the Market Definition was an error.</p> <p>It also appears that there may have been some confusion between fixed wireless broadband and “fixed wireless access (FWA)” a term that is described and used almost exclusively in the Consultation Document in the context of Managed VoIP services.</p>	<p>Digicel recommends that further work be undertaken to define Fixed Wireless Broadband and Fixed Wired Broadband and whether they may or may not be considered to be substitutes (or partial substitutes).</p> <p>Until such work is undertaken and completed, Digicel recommends that <i>Fixed Wireless Broadband Services</i> are removed from the Product Scope for the <i>Standalone Fixed Broadband Services</i> market.</p>	<p>The Authority thanks Digicel for its comments on the need to define broadband and distinguish between fixed wireless broadband and fixed wired broadband.</p> <p>The Authority advises that fixed wired broadband and fixed wireless broadband were applied jointly (i.e., as a singular service) in conducting this market definition exercise and, therefore, the queried terms are reflective of subcategories of the singular relevant service. Hence the Determination has been amended to include an applicable definition of fixed wired/wireless broadband service.</p> <p>For further clarity, Digicel is advised that the distinction between fixed wired and fixed wireless was not required for the TATT-KCL Fixed Customer Survey, since both services are viewed similarly, as a standalone broadband service.</p>

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				<p>Importantly, the term “broadband” is not defined in the Consultation Document, and it does not appear that any attempt has been made to objectively compare the technical differences between services that may be provided by way of “Fixed Wired Broadband” and “Fixed Wireless Broadband” or whether they can be considered to be demand side or supply side substitutes (or partial substitutes).</p> <p>The TATT-KCL Fixed Customer Survey also did not appear to draw a distinction between “Fixed Wired Broadband” and “Fixed Wireless Broadband” or whether respondents considered them to be substitutes.</p> <p>In the circumstances, Digicel considers there is no evidence to support a decision to include “Fixed Wired Broadband” and “Fixed Wireless Broadband” in the same market for “standalone fixed broadband services”.</p>		<p>Therefore the inclusion of both technologies within the list of mobile market definitions was done to highlight the primary subcategories of the relevant service, for increased clarity and transparency of the service elements, where applicable.</p> <p>Thus, given the clarification of the subcategorization of the standalone fixed broadband service, the Authority will maintain the categorization of the market definitions contained in the Determination and has included a definition of fixed wired broadband or fixed wireless broadband service.</p>
5	1	General	TSTT	<p>Telecommunications Services of Trinidad and Tobago Limited (“TSTT”) appreciates that the Telecommunications Authority of Trinidad and Tobago (“TATT”) has given operators the opportunity to comment on these matters. It should be noted that TSTT’s</p>		<p>The Authority appreciates TSTT’s feedback in this consultation and its recognition of the importance of this process.</p>

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				comments on this document do not preclude TSTT from making further comments in the future.		
			TSTT	TSTT welcomes TATT's conclusion that mobile voice services are an effective substitution for fixed voice services and thus are part of the same market for voice. This is a conclusion that the market has long since recognised. It is gratifying to see it finally embedded in the regulatory regime.		<p>The Authority notes TSTT's acceptance that mobile voice services are effective substitutes for fixed voice services. The Authority arrived at this definition based on evidence gathered from concessionaires, customer surveys, market data, and published tariff information. Additionally, the Authority considered forward-looking developments, including future technological trends; 4G penetration and 5G network build-out; shifts in consumption patterns in the post-pandemic era; market trends such as full (access) and partial (usage) substitutability; and evolving trends in OTT applications.</p> <p>Therefore, the definitions arrived at in this Determination were premised on a robust and evidence-based approach and include the definition that mobile voice forms part of the fixed voice market.</p>
6	1.1.	Background to the Authority's Determination	CCTL	Among the information relied on in the market assessment analysis is the "Customer Survey in Domestic Fixed and Mobile Markets of Trinidad and Tobago". A review of the first-round consultation	CCTL considers that the most consequential decision of this process is that of the substitutability of fixed voice	The Authority thanks CCTL for its comments and recommendations on the consultative process used in establishing this Determination. Operators are reminded that

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				<p>document and the Decision on Recommendation document accompanying this second round shows that this survey is used to support key areas of analysis, such as customers switching behavior for the SSNIP test, and how customers use the various services.</p> <p>Given that the results of the survey feature prominently in the decision-making process we believe there is a procedural issue, as the survey instrument should have been subjected to consultation.</p> <p>The Telecommunication Act Chapter 47:31 (the Act), provides at S (18)(4) provides that,</p> <p>“In the performance of its functions under subsection (1)(c), (d), (e), (m) and (p), sections 28, 78 and 79 and any other provisions of the Act as the Authority deems appropriate, the Authority shall adopt procedures by which it will—(a) afford interested parties and the public opportunities for consultation; (b) permit affected persons and the public to make appropriate submissions to the Authority.”</p> <p>It is our considered view that the fact that the survey instrument which is integral to this decision-making</p>	<p>services with OTT voice. In light of the procedural concern highlighted, coupled with the preponderance of quantitative and qualitative data indicating that domestic fixed voice and OTT voice service are substitutable, we recommend that the Authority reviews its decision now as opposed to three to five years in the future. As part of this process, survey instruments from which findings will be relied on in the decision, should be subject to consultation.</p>	<p>the Authority's consultative process is laid out in its published <i>Procedures for Consultation in the Telecommunications and Broadcasting Sectors of Trinidad and Tobago</i> (Consultation Procedures) and accords with section 18 (4) of the Act , which states:</p> <p>“In the performance of its functions under subsection (1)(c), (d), (e), (m) and (p), sections 28, 78 and 79 and any other provisions of the Act as the Authority deems appropriate, the Authority shall adopt procedures by which it will—</p> <p>(a) afford interested parties and the public opportunities for consultation; (b) permit affected persons and the public to make appropriate submissions to the Authority”.</p> <p>In compliance with these provisions and beyond the standard opportunities for participation granted in said, operators are reminded of the quantitative data templates and qualitative requests for information issued to concessionaires of public domestic fixed telecommunications services at the outset of the assessment. These instruments were aimed at gathering concessionaires’</p>

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				<p>process was not subject to consultation raises procedural questions.</p>		<p>perspectives, comments, inputs and datasets, to ensure a robust, evidence-based, objective and thorough approach was used in establishing the Determination.</p> <p>Further, considering the integrity of the TATT-KCL Fixed Customer Survey, operators are advised that the survey's sample size of 1,000 end users, satisfies and exceeds the thresholds considered appropriate for populations of 100,000 and above, using a margin of error of 5%. This sample size is substantially larger than the 400-threshold value proposed for populations of 1 million in published statistical tables relating to the 95% confidence level (International Journal of Economics, 2014).</p> <p>Therefore, the process used by the Authority in arriving at this Determination was evidenced based; met and surpassed established thresholds used in assessing market definition; was informed by a multiplicity of approved criteria (including product characteristics, uptake and usage trends, switching patterns and supply-side</p>

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						<p>substitutability); and, is consistent with the Authority's Consultation Procedures.</p> <p>In keeping with the Authority's consultation procedures, operators are asked to recall that the Determination has undergone two rounds of public consultation during which stakeholders were provided with significant opportunity to give feedback. In each round, the consultation period was extended, affording stakeholders additional time to submit comments and feedback on the Determination. It is notable that the Authority, taking into account stakeholder comments during the first round of consultation, international benchmarks and customer usage metrics, amended its initial position on the inclusion of mobile voice services. This shows that the Authority does consider the recommendations of its stakeholders in determining the relevant market boundaries.</p> <p>Therefore, given the time and diverse mechanisms used to engage stakeholders in this Determination, the Authority</p>

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						respectfully disagrees with operator's view on the credibility of the survey, the consultation process and the Determination. The Authority concludes that there is no reasonable basis to amend its review cycle, which is based on international standards and domestic factors (ICT Market analysis and determination of dominance guidelines, Digital Regulation Platform, 2022 ²).
7	2	Approach to Determining Dominance in the Relevant Markets	Digicel	<p>Digicel observed that the Authority introduced a new methodology/approach (i.e., partial substitution) to defining the relevant boundaries of the domestic retail fixed market of Trinidad and Tobago in the Executive Summary section of the Consultation Document. The rationale set out by the Authority to change its methodological approach midway during the consultation process was stated in the Executive Summary of the Consultation Document as follows:</p> <p>“This revision takes into consideration feedback received from stakeholders during consultation, additional operator metrics (including, significant customer switching on a calls or usage basis, constant</p>	<p>Digicel recommends that the Authority make revisions to its section 2 of the Consultation Document titled 'Approach to Determining Dominance in the Relevant Markets' introducing this new methodological approach to defining the relevant boundaries of the domestic retail fixed market of Trinidad and Tobago.</p> <p>Digicel further recommends that the Authority provide</p>	The Authority thanks Digicel for its feedback on the methodology (i.e., partial substitution) used to define the relevant boundaries of the domestic retail market. The operator is advised that the use of the term “partial substitution” or “usage metric” as part of the methodology was applied throughout the Determination and does not reflect a change in the methodological approach. The use of the term “partial substitution” (or usage metric) as part of the methodology is not a new methodology but was included to simplify the reporting on the analysis and was

² <https://digitalregulation.org/ict-market-analysis-and-determination-of-dominance-guidelines/>

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				<p>service tariffs, and declining financial earnings) and international best practices.</p> <p>Specifically, the Authority notes the revised European Commission Notice on the definition of the relevant market for the purposes of EU competition law, which permits taking into account usage metrics (partial substitution) and does not require the exclusive use of perfect substitution (access metrics) for market definitions.”</p> <p>The Authority failed to capture this revision to its methodology in Section 2 titled “Approach to Determining Dominance in the Relevant Markets” nor was there any indication that said revised methodology was or was not applied in sections 3 to 5 of the Consultation Document, with justification for said posture provided.</p> <p>The Authority is reminded that when a new methodological approach is introduced into its analysis, it is also reasonable to highlight where it was adopted by the Authority as well as where attempts were made to adopt same partial substitution approach especially in instances where the perfect substitution approach was solely utilized.</p>	<p>clarification on whether the newly introduced approach regarding partial substitution (usage metrics) was applied throughout its analysis in Sections 3 to 5. It would also be prudent to undertake the aforementioned analysis rather than presenting findings solely predicated on perfect substitution (access metrics).</p>	<p>used to avoid confusion on the degree of substitution.</p> <p>For example, partial substitution was applied to section 3.2.1.2 “Uptake and usage trends”, which refers to evidence pertaining to the use (i.e., partial substitution) of standalone fixed voice service when making and receiving fixed calls and was used to inform the position that fixed line access and fixed voice services forms part of the same product market.</p> <p>In addition, partial substitution (usage metrics) was also applied in the evaluation of Figure 10 in section 3.3.14, where it was noted that, if faced with a price increase, “most respondents with only a fixed landline and call services mentioned they would either stop using their fixed landline to make calls, make fewer calls, or do nothing regardless of their monthly expenditure”. Digicel is asked to note that respondents who selected “make fewer calls” are effectively engaging in usage or partial substitution.</p>

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				<p>This would indicate that the Authority utilized the best approach to substitution in all cases where demand/supply side substitution analysis was undertaken.</p> <p>Absent the aforementioned, this would introduce a degree of uncertainty with regard to the credibility of the findings as set out in the document.</p> <p>The introduction of a new methodological approach solely in the Executive Summary section would and should not suffice especially for a regulatory assessment of this magnitude.</p>		<p>Furthermore, Digicel is also asked to note that, in the Authority's assessment of whether a particular service formed part of the relevant market, both access (perfect) and usage (partial) substitution were considered. Operators are also asked to recall, the uptake and usage trends criterion outlined in section 2.1.2 of the Determination, which forms part of the methodological approach to determining the relevant markets.</p> <p>Notwithstanding the above, the Authority has amended the Determination to ensure that the term "partial substitutability" is used with clarity throughout the document where applicable. In addition, partial substitution is taken into account where the likely impact on the profitability of a SSNIP by an HM is expected to be non-marginal or significant.</p> <p>For further clarification on the types of substitution, Digicel is advised that access substitution represents cases where goods are perfectly substitutable for each other; hence perfect substitution represents the case when</p>

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						<p>a buyer totally abandons one good for another. In partial substitution, the relevant service is not abandoned (nor is its use discontinued) by the consumer. However, the magnitude of the usage may be altered by the consumer in the event of a SSNIP and occurs with greater frequency where the service price may be metered or where customers' total expenditure on the service may be altered through consumption.</p>
8	2.1.3	Supply- Side Substitution	CCTL	<p>In discussing supply side substitution, the Authority discusses entry into the domestic fixed voice and broadband markets as well as other legal and regulatory barriers. Notably absent from this discussion is the fact that OTT providers supply consumers capabilities to make fixed voice calls without the licenses required by traditional fixed voice providers or the need to invest in network infrastructure. As discussed in our previous submission, today a single infrastructure is being deployed to run both voice and data using various transportation technologies such as VoLTE. Therefore, there are no longer any barriers to delivering domestic voice especially from a fixed location.</p>	<p>In light of current market realities, we recommend that the Authority takes account of today's market realities and use of forward-looking approaches in conducting market assessments.</p>	<p>The Authority acknowledges the comments and recommendations from CCTL on supply-side substitution. The operator is asked to note that OTT services are not considered supply-side substitutes for traditional fixed services in Trinidad and Tobago, since they depend on the existing telecommunications data networks (i.e., fixed and/or mobile data network), and OTT services are not accessible independently of, or without, data connections. Thus, OTT providers would be incapable of supplying their voice, messaging and video communication services in the absence of existing data networks.</p>

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						<p>The Authority recognizes that there has been a reduction in average call volumes per user for traditional fixed voice services, as shown in Figure 5 of the Determination. However, the potential correlation to, or impact of, OTT call/messaging services is mixed. The TATT-KCL Fixed Customer Survey reveals that most fixed Internet users (62.9%) reported that they use the Internet for making VoIP calls, while amongst OTT users, the majority of respondents (60%) indicated that the availability of these applications/services did not affect their use of fixed call or broadband services; the minority of respondents (40%) considered that the use of OTT services has impacted their use of fixed call services. Of those who altered their fixed service usage, 48.2% stated that they had acquired fixed broadband services to access OTT services. This suggests that most end users consider these services as complements and as partial substitutes. Regarding OTT services exclusion from the relevant market, the operator is reminded that the TATT-KCL Fixed Customer Survey indicated that, if fixed line service price were increased by 5%</p>

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						<p>to 10%, 25% of customers would do nothing; 15% of them would make fewer calls but make mobile calls instead, while 6.7% would make fewer calls or use OTT calls or messaging instead. This indicates that OTT services are substitutes for fixed voice services by a small or marginal proportion of respondents and are considered less substitutable than mobile voice services for fixed voice services.</p> <p>Regarding a forward-looking approach, CCTL is asked to recall that the Determination assessed voice services provided over broadband infrastructure using managed VoIP. Section 3.1 of the Determination concludes that fixed line access and managed VoIP services should be considered part of the same product market, given effective supply-side substitutability and partial demand-side substitutability.</p> <p>Furthermore, the Determination (in section 3.1) evaluates substitution and complementarity of OTT services. Although it was observed that the number of persons</p>

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						<p>willing to substitute from fixed voice to OTT voice and/or messaging services in the event of a SSNIP is low at this time, the demand for OTT services by consumers in Trinidad and Tobago is considered likely to increase in the future.</p> <p>The impact on service substitution, expected by advances in technology including 4G penetration and 5G network buildout, is also outlined in the Determination (see section 4.1.1.2 Uptake and Usage Trend), with fixed and mobile substitutability likely to be seamless or increased as technological diffusion/proliferation increases throughout the population. In keeping with international best practices, and taking into account the dynamism of communication services, domestic telecommunications markets, and other forward-looking developments in the fixed telephony and broadband markets (including shifts in consumption patterns in the post-pandemic era and evolving trends in OTT applications amidst other technological advancement domestically), the Authority</p>

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						will review this Determination within the next three to five years.
9	2.3	Relevant Geographic Scope	CCTL	<p>In addressing geographic scope on page 7 of the consultation document, Note 13 states,</p> <p>“This analysis only considers service provision within Trinidad and Tobago, as the Authority does not have jurisdiction beyond these borders and this assessment concerns domestic services offered to residents of the country. In addition, concessionaires in Trinidad and Tobago typically only hold licences to provide services within the national geographic boundaries of Trinidad and Tobago. Although the assessment takes into account some communications service providers based/incorporated outside of Trinidad and Tobago (such as OTT service providers like Skype), in the context of how these providers might influence the demand and supply of domestic retail fixed services in Trinidad and Tobago, it only considers the markets established within Trinidad and Tobago. This approach is in line with international precedent.”</p> <p>This statement appears to contradict statement on page 25 of the DORS, where in responding to CCTL's input, the Authority states that in considering geographic scope of the market it considered “services made</p>	Where international precedents are mentioned, the Authority should provide proper citation to precedents referenced.	<p>The Authority acknowledges CCTL's comments and recommendation on the methodology used to evaluate relevant geographic scope. The Authority respectfully disagrees with CCTL's view that the statements are contradictory for the following reasons.</p> <p>The statement regarding footnote 13 addresses services provided by domestic telecommunications operators to Trinidad and Tobago citizens. Hence the emphasis here is on local firms providing products to local citizens in the domestic market. The statement also takes into consideration some communication service providers incorporated outside of Trinidad and Tobago who provide similar services to domestic customers, and thus includes relevant international players.</p> <p>The statement on page 25 of the DORS emphasizes that the analysis is focused on the domestic market, and includes relevant international players, for example, OTT</p>

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				<p>available to domestic consumers by international players i.e. OTTs.”</p> <p>Further the statement seems to indicate that the Authority only considered markets established in Trinidad and Tobago, because (i) it does not have jurisdiction outside of the borders of Trinidad and Tobago, and (ii) the assessment concerns domestic services offered to residents in Trinidad and Tobago.</p> <p>For economic purposes a market is defined as an arrangement between buyers and sellers for the exchange of goods and services for money, hence price is a key determinant. If the Authority only considers markets established within Trinidad and Tobago, this ignores major technology and market shifts that allow out of jurisdiction players to offer competing fixed voice services to customers in Trinidad and Tobago.</p> <p>Given the lack of clarity, CCTL is requesting that the Authority clarifies the seeming inconsistency. We are also requesting that the Authority cites the international precedent alluded to in the Note 13.</p>		<p>services. Both statements are consistent with the methodology used to determine geographic scope which investigates the national market whilst considering factors (both international and domestic) that affect the operation of the domestic market (such as international players like OTT services).</p> <p>Furthermore, the Authority has amended footnote 13 in the Determination by replacing the term “...established within Trinidad and Tobago.”. Thus, the Determination now provides the following: “Although the assessment takes into account some communications service providers based or incorporated outside of Trinidad and Tobago (such as OTT service providers like Skype), in the context of how these providers might influence the demand and supply of domestic retail fixed services in Trinidad and Tobago, it only considers the markets existing within Trinidad and Tobago. This approach is in line with international precedent.”</p> <p>The Authority acknowledges CCTL's request for the citation of the precedent</p>

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						<p>referenced. Accordingly, the reference to the document on the relevant geographic scope is taken from the “ICT Market analysis and determination of dominance guidelines (ITU, World Bank 2022)”.</p> <p>The Authority also takes note of CCTL’s comments on the impact of developments in major technology and shifts in markets outside of Trinidad and Tobago. CCTL is advised that the Authority considers the impact on competition in international telecommunications markets in other assessments and will consider expanding these assessments to include market definition exercises in the future, where required.</p>
10	3.5.	Geographic Scope of the Product Markets	CCTL	Refer to comments in Section 2.3 on Relevant Geographic Scope.		<p>The Authority notes CCTL’s comments to section 2.3 on the relevant geographic scope and provides the following response. The Authority’s statements support the assertion that the geographic scope investigates the domestic telecommunications market whilst considering both international and domestic factors that affect the operation of the domestic market (such as international players that provides OTT services).</p>

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						<p>In addition, the Authority has amended footnote 13 in the Determination by replacing the term "...established within Trinidad and Tobago." The amended Determination states: "Although the assessment takes into account some communications service providers based/incorporated outside of Trinidad and Tobago (such as OTT service providers like Skype), in the context of how these providers might influence the demand and supply of domestic retail fixed services in Trinidad and Tobago, it only considers the markets existing within Trinidad and Tobago. This approach is in line with international precedent."</p> <p>The Authority acknowledges CCTL's request for the citation of the precedent referenced. Accordingly, the reference to the document on the relevant geographic scope is taken from the "ICT Market analysis and determination of dominance guidelines (ITU, World Bank 2022)".</p>

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						<p>CCTL is advised that the Authority considers the impact on competition in international telecommunications markets in other assessments and will consider expanding its international market assessments to include additional economic tests, including market definition exercises, in the future, where required.</p>
11	4.1	Are Mobile Voice Services in the Same Product Market as Fixed Voice Services?	CCTL	<p>We note the Authority's revised position to include mobile voice services as part of domestic fixed services market. This is said to be based on significant partial substitution of fixed voice service to mobile voice service on a call-by-call basis. CCTL does not object to this decision but find the case for OTT voice to be in the same market as fixed voice as equally or even more compelling.</p>		<p>The Authority acknowledges CCTL's non-objection to the inclusion of mobile voice services as part of the fixed voice service market and its preference for the inclusion of OTT voice services as part of the fixed voice service market. However, given the evidence collated (see section 4.3 of the Determination), which indicated that mobile voice and fixed voice services are neither symmetrically nor perfectly substitutable, and OTT services are less substitutable than mobile voice services, OTT services do not reside in the fixed telephony market at this time.</p> <p>The Authority informs CCTL that the nature of substitution between fixed voice and mobile voice is asymmetric (as customers do</p>

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						<p>not switch between fixed voice and mobile voice services in similar proportions and vice versa proportionately) and, moreover, is based on usage. The evidence indicates that, at this time, OTT services are not the primary substitute of fixed voice services as OTT services were found to have a lower degree of substitution than mobile voice with fixed voice services. This is consistent with the methodology used to assess the relevant market boundary (the SSNIP test), which identifies the smallest scope of services upon which an HM might profitably increase the service tariffs. Respondents to the TATT-KCL Fixed Customer Survey indicated that, when faced with a of 5% to 10% increase in the price of their fixed line service, 25% of customers would do nothing; 15% would make fewer calls, while 6.7% of respondents would use OTT calls or messaging instead. This analysis is in concurrence with the revised <i>European Commission notice on the definition of the relevant market 2022</i>, which indicates that the relevant scope of services is determined by including the most used</p>

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						<p>substitute until the HM can profitably increase its tariffs.</p> <p>The Authority considers that an HM providing both fixed and mobile telephony services may be able to retain a significant portion of customers in the event of a SSNIP. Therefore, based on the evidence collated, OTT services are not sufficiently substitutable and do not form part of the relevant fixed telephony market at this time. The Authority advises operators that the process to determine relevant markets in the telecommunication sector will be reviewed in the next three to five years.</p>
12	4.1.1.4	Switching Behaviour	Digicel	<p>Digicel is concerned that the Authority has not provided a properly reasoned position to support its preliminary conclusion that “it is unlikely that a SSNIP in fixed access and call services would be profitable due to significant demand-side substitution to mobile voice services. Therefore, domestic mobile voice services can form part of the same product market as domestic fixed voice services, as there is significant demand-side substitutability from fixed-to- mobile voice services”.</p>	<p>Digicel recommends that the Authority provides more specificity and further justification for the inclusion of mobile voice services as part of the domestic fixed telephony services market, including relevant usage metrics that support its position that mobile voice service is a meaningful</p>	<p>The Authority acknowledges Digicel's recommendation for more details supporting the inclusion of mobile voice services as part of the domestic fixed telephony services market.</p> <p>The conclusion that mobile voice and fixed voice services are in the same market was informed by the application of the internationally established criteria for assessing market definition. The evidence</p>

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				<p>In Digicel's view, the Authority's stated position is unconvincing given that:</p> <ol style="list-style-type: none"> The Authority has relied upon the apparent significance of 15% of survey respondents saying they would "make fewer calls, but use mobile calls" in the face of a 5% SSNIP in Fixed Voice Service. However, reliance on this proportion of customers ignores the 85% of customers who would not take such an action. Moreover, Digicel considers the 15% itself is likely to be an overstatement given the way mobile phones interact with fixed Wi-Fi and that, based on the way the survey questions were asked, it seems likely that at least some customers would not distinguish between OTT calls made on a mobile handset and standard cellular calls made on the same handset. Using the information presented by the Authority in Table 15 of the Consultation Document, a 5% SSNIP in the Fixed Voice Service would still yield a price that was substantially lower than the price of a mobile voice call. In such circumstances, it would not be rational for a customer to switch from the Fixed Voice Service to a mobile voice call when to do so would be more costly. Instead, it seems more likely that 	<p>substitute (or partial substitute) for fixed voice service.</p> <p>In the absence of such objective justification, Digicel recommends the Authority gives consideration to the removal of mobile voice services as part of the domestic fixed telephony services market.</p>	<p>used by the Authority to arrive at the conclusion is based on the product characteristics, an HM SSNIP test, annual market review data, and international best practice.</p> <p>The Authority's notes that the TATT-KCL Fixed Customer Survey highlights that 15% of respondents who would switch to mobile voice calls when faced with a 5% increase in fixed voice services is sufficient to include mobile voice as the fixed voice market because the cross elasticity coefficient is significantly strong and elastic, rendering products as close substitutes in the fixed voice market.</p> <p>Regarding usage and customer switching, the evidence suggests that the degree of substitution between mobile voice services and fixed voice services is greater than OTT services and fixed voice services. The TATT-KCL Fixed Customer Survey, Table 9, shows the action that consumers would take if their fixed landline price increased by 5% to 10%. Only 6.7% of respondents indicated</p>

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				<p>the customer would switch to making an OTT voice call on their mobile device as such calls would be perceived to be “free”.</p> <p>The impact of OTT services is shown clearly in the market research undertaken by the Authority in connection with its Consultative Document Framework on Over-The-Top Services (OTTs) in Trinidad and Tobago, which was published on 25th August 2023. On page 12 of that Consultative Document the Authority stated:</p> <p>“From a purely demand-side perspective, the National Digital Inclusion Survey 2021 (DIS 2021) showed that a significantly high proportion of the local population (83%) reported that they used OTTs. For persons using OTTs, 79% access the services on a daily basis. The median time in minutes spent calling and messaging using OTT applications generally, and on Wi-Fi specifically, were 30 and 45 minutes, respectively. According to DIS 2021, the highest reported advantage of OTTs compared to mobile and SMS was better quality of connection particularly through a Wi-Fi connection, perceived by the respondents. These figures in DIS 2021 show the growth in demand and use of</p>		<p>they would make fewer calls but use OTT voice or messaging services in response to the increase in price. However, 15% of respondents indicated they would make fewer calls but use mobile calls instead in response to the increase in the price of their fixed voice service.</p> <p>The above suggests that mobile voice services are considered as substitutes by significantly more customers than those who consider OTT services as substitutes. This result is consistent with the Authority’s annual market reports regarding service penetration results. The reports indicate that mobile voice service remain the most dissolved service, having the highest penetration rate (148 per 100 inhabitants) of all telecommunications services (as of the third quarter of 2023). This rate is also consistent with the market data results reported for the period 2018–2022, where the mobile voice penetration rate per 100 inhabitants exceeded 145 per annum.</p>

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				OTTs in Trinidad and Tobago, as well as the need for an orderly and structured approach to market expansion”.		<p>Mobile voice penetration rate can be compared to the uptake of OTT services within the population, which ranged between 70% and 90%, and (OTT services) are also more popularly consumed on fixed Internet networks (DIS Survey 2021 and TATT-KCL Fixed Customer Survey 2023).</p> <p>This additional detail on the highest penetration and wider accessibility of mobile voice services has been included in the revised Determination. Specifically, the statement that “Mobile voice subscriptions remain the highest of all retail telecommunications service domestically, recording a penetration rate of 148 per 100 inhabitants in 2023” has been inserted in the revised Determination.</p> <p>The Authority assures Digicel that the methodology and results of the Fixed Customer Survey are robust and reliable. The Authority reminds operators that the survey process was done by an independent party with expertise in survey research. The data collected and results obtained are transparent,</p>

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						<p>unbiased and in keeping with international standards.</p> <p>Furthermore, the Authority advises that the significant decline in fixed voice calls and revenues, pursuant to TATT-QMR 2023, also supports the conclusion of the Determination that fixed voice services and mobile services are part of the same market. The Determination, in section 3.2.1.2 and Figure 5, acknowledges the declining demand for fixed voice use. This is in accordance with the annual market review and the quarterly market update data for the period 2018 to 2023, which further show that fixed voice subscription declined from 317,500 in December 2018 to 311,000 in December 2023. Similar contractions in fixed voice service revenues (which fell from TT\$134.8 million to TT\$77 million) and changes in the HHI (which fell from 4132.5 to 3271) further buttress the findings of the Determination.</p> <p>The above additional details and collated evidence suggest that mobile voice services are significantly more accessible than OTT</p>

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						<p>services and fixed service uptake and usage are declining. Therefore, the Authority is without evidence or reasonable basis to conclude that fixed voice service excludes mobile voice services or forms a separate market on its own.</p> <p>The Authority considers that the Determination is robust, i.e., informed by a plethora of customer data, market data, operator submissions and internationally accepted criteria or benchmarks available to the Authority at this time. However, taking into cognizance the dynamism of communication services, including shifts in consumption patterns in the post-pandemic era; future technological and market trends such as full mobile substitutability; and evolving trends in OTT applications, the Authority considers that the fixed voice market definition should be reviewed in the next three to five years.</p> <p>Digicel's comments on partial substitution based on usage metrics are considered. The</p>

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						<p>Authority informs Digicel of the distinction between usage substitution (services are viewed as complementary, i.e., the customer retains both goods/services and uses each alternatively, by substituting between the services based on the customer's discretion) and access substitution (the abandonment or complete discontinuation of a product and, in this case, the service is perfectly or completely substituted, such that the consumers only buy and use one of the service options).</p> <p>Given the evidence collated, the Authority considers that substitution between fixed voice and mobile voice service use is sufficient to prevent an HM in the fixed voice market from increasing revenues and profits. Therefore, pursuant to the established criteria for determining the relevant market boundary and the definition of a relevant market, the Authority is without the necessary evidence to conclude that the fixed voice market excludes mobile voice services or forms a separate and distinct market on its own.</p>

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13	4.2	Are Mobile Data Services in the Same Product Market as Fixed Broadband Services?	TSTT	TSTT is dismayed that TATT has not accepted that the characteristics of mobile broadband do not yet represent substitutability for fixed broadband. TATT appears to be sensitive to the fact that as 4G and 5G services are increasingly adopted the argument for a single market becomes stronger. TSTT looks forward to TATT reconsidering this position in the next review.	In the future, TATT should analyze in more detail the broadband market with a view to revising its view on whether mobile data and fixed broadband services are in the same product market.	The Authority notes TSTT's comments on mobile data services residing in the same product market as fixed broadband services. The Authority advises TSTT that there are fundamental differences between mobile data and fixed broadband, which explains why they are not effective substitutes and hence do not form part of the same market at this time. These differences are detailed in the Determination and the operator is asked to note section 4.2 Are Mobile Data Services in the Same Product Market as Fixed Broadband Services. For example, there are differences in the product characteristics of fixed broadband and mobile data services, in terms of the available download speeds, data cap limits, mobility of data services, prices, capacity and user experience, that potentially limit the extent to which these services will be considered effective substitutes. Further considering uptake and usage metrics, non-opposing trends in the uptake of mobile data services and fixed broadband services indicate that these services are not effective substitutes. The evidence suggests that a significant proportion of the population in

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						<p>Trinidad and Tobago accesses and uses both fixed broadband and mobile data services. For instance, statistics presented in the Authority's Annual Market Report (AMR) 2022 indicate that both mobile Internet and fixed broadband Internet penetration rates increased between 2018 and 2022 by 26% (49.9 to 62.9) and 14.1% (80.8 to 92.2), respectively.</p> <p>Further, the Authority notes the frequency of the tariff revisions and price increases in the fixed broadband market (for the period 2022 to 2023). These steady increases in the price of fixed broadband services might suggest that an HM can profitably sustain a price increase in the relevant services which imply that fixed broadband services and mobile data services form distinct markets on their own.</p> <p>As the market progresses, including technological advances in 4G accessibility and 5G network buildout, the Authority considers that substitutability between fixed</p>

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						<p>broadband services and mobile data services is likely to increase.</p> <p>The operator is reminded that a relevant product market is defined as the smallest group of products in which an HM (a sole profit-maximizing seller) would impose and maintain a SSNIP. Only a small proportion of respondents to the TATT-KCL Fixed Customer Survey (between 0% and 5%) stated that they would rely on MiFi or smartphone mobile data services (see Table 13 for further details). Whereas, approximately 80% of respondents would continue to consume their fixed broadband service, either with their fixed broadband plan or by moving to another fixed broadband plan in the event of a SSNIP. Therefore, fixed broadband services may be considered as forming a separate market on their own (distinct from the mobile data service market) at this time.</p>
14	4.3.	Are OTT Services in the Same Product Market as	CCTL	In the face of overwhelming evidence to the contrary, the Authority maintains the position that OTT services do not form part of the same market as fixed voice	CCTL urges the Authority to reconsider its decision with respect to the substitutability of	The Authority acknowledges CCTL's comments and recommendations regarding the inclusion of OTT services as part of the fixed voice market.

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		Fixed Voice Services?		<p>services due to limited demand and supply side substitutability.</p> <p>In addressing demand substitution in the DORs, the Authority acknowledges the high adoption rate of OTTs in the domestic market and supports this with the responses to the customer survey it commissioned. A high percentage of respondents (62.9 %) used fixed broadband Internet to make fixed voice calls. The survey results also indicate that 40 % of respondents reported that the availability of OTT services has impacted their use of fixed voice service.</p> <p>We believe the critical statistic from the survey indicates that fixed voice service is very sensitive to any proposed increase in the price of fixed domestic voice (over 30% of respondents indicating that they will switch to an alternate means in the event of a 5-10% increase in the price of the service). With OTTs gaining importance and usage within the telecommunications space coupled with the price elasticity of fixed voice, it would be more than plausible to reason that OTT voice is at a minimum a partial substitute for fixed voice. We believe therefore that such allowance in the final analysis should be provided to reflect this relationship/correlation.</p>	traditional fixed voice services and OTT voice services.	<p>Regarding the inclusion of OTT services in the fixed telephony market, customers switching to alternative means in the event of a SSNIP does not imply that services are perfectly or sufficiently partially substitutable and belong to the same market (as explained in section 4.3 of the Determination). The evidence suggests that consumers are not giving up their fixed devices but are switching to mobile services in the first instance, and to OTT services to a lesser degree, on a marginal call basis respectively. The operator is reminded of the TATT-KCL Fixed Customer Survey, which indicates that, if the price of fixed line services were increased by 5% to 10%, 25% of customers would do nothing; 15% would make fewer calls but use mobile calls instead; and 6.7% of respondents would make fewer calls or use OTT calls or messaging instead (as depicted in Figure 25 and discussed in section 4.3.1.4 Switching Behaviour in the Determination).</p>

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				<p>Further based on reporting from the Authority, between 2015 and 2021 fixed voice revenues declined by 54% and average revenue per user by 39%. Over the same period fixed broadband revenue increased by 60% and average revenue per user by 20%.</p> <p>The survey report on the percentage of consumers using broadband Internet to make calls, the percentage of customers indicating OTT services have impacted their use of fixed voice services, coupled with the significant decline in fixed voice calls and revenues is irrefutable evidence of demand substitution from fixed voice calls to OTT calls.</p> <p>In responding to the issue of demand substitution in the DORs, regarding how consumers indicated they would respond to a price increase in fixed line services, the Authority admits “a strong response in quantity demand to price change” then qualifies this by stating that only a small number of customers would switch from fixed voice to OTT voice and messaging service on a call by call basis, then concludes that a stronger customer response would be required to pass a SSNIP test.</p> <p>CCTL has two substantive concerns with the inputs to this key decision. Firstly, as discussed in Section 1.1. (Background to the Authority’s Determination), the</p>		<p>The Authority notes the operator’s position, that the decline in fixed voice revenue and its associated ARPU is correlated to a degree with an increase in fixed broadband and the related ARPU during 2015 to 2021 is linked to an increase in the uptake and usage of OTT services.</p> <p>However, the Authority has recognized that the relevant market and product characteristics of fixed voice do share some similarities with OTT services, but it is not sufficient to render both products in the same market, at present. Section 4.3.1 of the Determination, relating to demand-side substitution, states “The Authority acknowledges that OTT services have some similarities with domestic fixed voice services. OTT services allow users to make calls to and from both domestic and international destinations. However, this does not mean that these services are effective substitutes. As such, it is unlikely that demand-side substitution from fixed access and call services to OTT services</p>

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				<p>survey instrument used to inform the results of the SSNIP test was not consulted on. Secondly, the weight of the reliance on the SSNIP test ignores the fundamental technology and market changes in this context.</p> <p>The Authority's view that there is no supply side substitution between fixed voice service and OTT service due to high barriers of entry, such as the need to deploy fixed network infrastructure and deploy retail distribution network, ignores the realities of the current technology and market landscape. We reiterate here points made in our previous submission. Domestic voice is no longer tied to a technology. Domestic voice can be delivered in large capacity by many other types of technologies. Operators are no longer willing to invest in building new fixed infrastructure to deliver voice in the way it once was delivered. No longer are voice only infrastructures been built as was the case in the past. Today a single infrastructure is being deployed to run both voice and data using various transportation technologies such as VoLTE Therefore there are no longer any barriers to delivering domestic voice especially from a fixed location.</p> <p>For the supply substitution side of the conversation the market and technology has moved on.</p>		<p>would render a SSNIP in the former unprofitable.”</p> <p>In light of the fundamental technology and market changes referenced, the operator is asked to note that the Determination also assesses evolving technologies, including VoIP and broadband Internet in sections 3.1 and 3.3, respectively. These services are assessed in addition to OTT services, as prospective substitutes for fixed voice service, noting that voice-only infrastructures are materially declining.</p> <p>Regarding VoIP, in section 3.1 of the Determination, the Authority concludes that fixed line access and managed VoIP services should be considered part of the same product market, given effective supply-side substitutability and partial demand-side substitutability.</p> <p>Alternatively, section 3.3 concludes that standalone fixed broadband forms a distinct market on its own, due to demand-side factors, including its high proportion of</p>

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				<p>In light of the overwhelming empirical evidence CCTL maintains that it does not agree with the Authority's decision that OTT voice services do not form part of the same product market as domestic fixed voice services. It is our considered view that there is sufficient technology available with the capacity to facilitate the completion of domestic voice call from a fixed location with the required voice quality, and that is cost effective for a significant portion if not all the consumer base. There is overwhelming evidence of sufficient demand side and supply side substitutions from fixed voice to OTT voice service.</p>		<p>subscriptions and significant pricing differentials.</p> <p>Additionally, considering the survey instrument used to inform the results of the SSNIP test, the operator is asked to note that neither the evidence nor the instruments used for data gathering (i.e., the customer surveys; market data; operators' qualitative RFI and quantitative data; international benchmarks; and established thresholds), typically require the approval of operators before their use. The operator is advised that the data-gathering process followed was in accordance with international standards for market definition exercises. Moreover, the survey instrument was administered by a third-party and designed with guidance from an international consultant, to ensure international standards were met.</p> <p>In keeping with the Authority's consultation procedures, the Determination has undergone two rounds of public consultation during which stakeholders were provided with significant opportunity to provide feedback.</p>

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						<p>In each round, the consultation period was extended, giving stakeholders additional time to submit comments and feedback on the Determination.</p> <p>Therefore, the consultation process adopted by the Authority in conducting the Determination conforms with both domestic and international standards and therefore the final Determination may be considered adequately consulted on.</p> <p>On the supply-side, the Determination acknowledges that fixed voice and fixed broadband services are substitutes, as both can be delivered through similar technologies, and especially given the high prevalence of managed VoIP services in Trinidad and Tobago.</p> <p>Regarding supply-side substitution between OTT services and fixed telephony services, the operator is asked to note that OTT services are not considered supply-side substitutes for traditional fixed services in Trinidad and Tobago, since they depend on</p>


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						<p>the existing telecommunications data networks (i.e., fixed and/or mobile), and OTT services are not accessible independently without data connections. Therefore, OTT providers would be incapable of supplying their voice, messaging and video communication services in the absence of existing data networks.</p> <p>The Authority recognizes that there has been a reduction in average call volumes per user for traditional fixed voice services, as shown in Figures 5 and 25 in the Determination and Table 9 in the TATT-KCL Fixed Customer Survey. However, as customers have not abandoned their service, and a small proportion of customers would switch on a call basis, the evidence collated from the domestic market, including limited consumer switching and non-opposing (joint) uptake trends, suggests that most end users think of these services as complements and partial substitutes to a lesser degree than mobile voice services.</p>

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						<p>Consequently, OTT services are not sufficiently substitutable, as they were reported to have a significantly lower degree of substitution than mobile voice with fixed voice services.</p> <p>Furthermore, the Authority reminds the operator of the definition of a relevant market, which identifies the smallest scope of services upon which an HM might profitably increase prices. In keeping with the international definition for the relevant market, OTT services are not observed to be part of the relevant domestic retail fixed voice market at this time; the evidence suggests that OTT services are not the primary substitute of fixed voice services, as they (OTT services) were found to have a lower degree of substitution than mobile voice with fixed voice services. In light of the foregoing, the Authority considers that the findings of the Determination on OTT services are adequately robust, representative of the domestic competitive dynamics, and should not be revised at this time, based on</p>

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						<p>the evidence collated in this review period (2018 to 2022).</p> <p>Hence, CCTL is advised that the position is based on evolving trends in the market and the Authority will review this Determination within the next three to five years.</p>
15	4.3	<p>Are OTT Services in the Same Product Market as Fixed Voice Services?</p> <p>OTT services share some similarities with fixed voice services. However, whilst OTT voice services are commonly</p>	Digicel	<p>Digicel disagrees with the Authority's conclusion that there is limited substitutability with fixed voice services from the demand side and supply side.</p> <p>On the contrary, DIS 2021 shows that OTTs are widely used and especially so on fixed Wi-Fi.</p> <p>This is confirmed by the Authority at section 4.3.1.2 of the Consultation Document where it is stated that 40% of respondents in the TATT-KCL Fixed Customer Survey "<i>considered that the use of OTT services has impacted their use of fixed call services</i>". While this may be a minority of respondents it is nevertheless material and shows that, even without a SSNIP in the price of a fixed voice call, a large proportion of customers still use OTT as a substitute.</p>	<p>Consistent with the Authority's approach to rely on partial substitution as the rationale for including mobile voice services in the same market as fixed telephony services, Digicel recommends that the Authority gives further consideration to the inclusion of OTT voice services in the same market as domestic fixed telephony services.</p>	<p>The Authority acknowledges Digicel's recommendation regarding OTT services' inclusion in the same product market as fixed voice services. The operator's view of the relationship between OTT services, mobile voice services and fixed voice services is also noted. However, the Authority advises that the relationship between fixed voice and mobile voice is not linear or symmetric, as articulated by the operator, because there is not a direct substitution between fixed voice and mobile voice (i.e., customers switching between fixed voice and mobile voice services and vice versa proportionately).</p>

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		<p>offered at a significantly lower price than fixed voice services, limited substitutability from the demand side and supply side indicates that they do not belong to the same relevant market</p>		<p>A potential explanation for the Authority's error in this regard is that the TATT-KCL Fixed Customer Survey, upon which the Authority has relied heavily, was not designed to adequately capture the uptake and usage of OTT services and customers' willingness to use such services as substitutes (or partial substitutes) for fixed voice services. This is for two main reasons:</p> <ol style="list-style-type: none"> 1. The TATT-KCL Fixed Customer Survey was targeted solely at the <i>"member of the household who makes the decision with respect to purchasing fixed telecommunications services including fixed landline, fixed Broadband Internet or multi-bundle services"</i> ("bill payer") and did not seek the views of the actual users of fixed services. This is an important deficiency in the survey as, in contrast to mobile services which are personal in nature, each fixed service is likely to provide service to many end users covering a range of demographic groups with varying usage preferences and habits. This is particularly important issue in the context of families where the bill payer may be less likely to consider using OTT services than other household members. 2. The TATT-KCL Fixed Customer Survey questions relating to OTT appear to focus on OTT 		<p>The Authority informs Digicel that the nature of the substitution between fixed voice and mobile voice services is asymmetric (as customers do not switch from mobile voice to fixed voice and vice versa in similar proportions). Sections 4.1.1.4 Switching Behaviour and 4.1.3 Preliminary Conclusions of the Determination: highlight the difference in substitution between fixed and mobile voice services and vice versa.</p> <p>Regarding Digicel's comments on the degree of substitution between fixed voice services and OTT services, the Authority notes the evidence gathered in this exercise which suggests that, at this time, OTT services are not the primary substitute of fixed voice services, as they were found to have a lower degree of substitution than mobile voice with fixed voice services. This is also evident from the established methodology used to determine the relevant market boundary (the SSNIP test) which identifies the smallest scope of services upon which an HM might profitably increase tariffs (ITU, World Bank 2022). The TATT-KCL Fixed Customer</p>

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				<p>apps on the respondent's computer. This can be seen in the survey questions contained in Section 3D of the Questionnaire. For example, question 3D.1. asks "<i>Which third-party over-the-top (OTT) application do you use on your computer? (Computer Includes desktop, laptop or tablet without a SIM Card)</i>".</p> <p>Question 3D.2. is phrased similarly. Then question 3D.3. moves on to ask the respondent "<i>How many minutes per week do you usually spend talking on local calls using OTT platforms? (WhatsApp, Facebook, Skype etc.)</i>"</p> <p>These questions are likely to result in the respondent disregarding calls OTT calls that are made on mobile phones connected to the fixed network via WiFi and, to the extent that they do, ignore the reality that most OTT calls will be made using a mobile phone as the connecting device.</p> <p>In any case, there can be no reasonable doubt from the data collected from various sources, including the TATT-KCL Fixed Customer Survey, DIS 2021 and concessionaires' quantitative data submissions all show</p>		<p>Survey indicates that, if respondents' fixed line service price were increased by 5% to 10%, 25% of them would do nothing, 15% would make fewer calls, while 6.7% would make fewer calls or used OTT calls or messaging instead but make mobile calls instead. The Authority notes that, although the extent of OTT services substitution is sufficient in the mobile market currently, the evidence suggest that the level of substitution (i.e., 6.7% of fixed customers) is not sufficient, at present, to include OTT services in the fixed voice market.</p> <p>Additionally, this position is aligned with the degree of uptake and use of OTT services indicated in DIS 2021, which notably are not fully taken up (nor oversubscribed) by the entire population. Thus, this position does not conflict with the results of the Determination, as the operator asserts. Rather, the evidence suggests that mobile voice services are accessed and used by a significantly greater margin of the population when compared to OTT services. Based on evidence from DIS 2021 and the TATT-KCL Fixed Customer</p>

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				<p>that at least a partial substitution of OTT calls for fixed calls is occurring and helps to explain why fixed calling volumes continue to decline as seen in Table 5 of the Consultation Document reproduced below.</p>  <p>Figure 5 Monthly fixed voice bundled and PAYG domestic call minutes per user</p> <p>Source: Communications Commission, Quarterly Data Submissions</p> <p>Even the TATT-KCL Fixed Customer Survey, which Digicel considers is biased against recognition of OTT calling and messaging from fixed lines, recognises that:</p> <ol style="list-style-type: none"> 1. the main purpose “for using OTT application on computer: desktop, laptop or tablet without a SIM card” is to “make voice or video calls” (see TATT-KCL Fixed Customer Survey at page 75); 2. 84.3% respondents spent more than an hour a week “on local voice calls using OTT third party applications” (page 76); and 3. “Approximately 84% of respondents indicated that they used OTT third-party applications several times a day” (page 77). 		<p>Survey, the proliferation of OTT applications in the domestic market ranges from 63% to 91% (i.e., less than mobile voice penetration). DIS 2021 reports that 83% of the population use OTT services. This is compared to the mobile voice penetration rate as of September 2023 of 148 per 100 inhabitants (Quarterly Market Update September 2023). Therefore, the Authority maintains that OTT services are not the primary substitute for domestic fixed voice services at this time, based on the data collated for the period 2018 to 2022, including DIS 2021 and the TATT-KCL Fixed Customer Survey.</p> <p>The Authority acknowledges the operator’s comments on the TATT-KCL Fixed Customer Survey instrument and its clarification of the users accessing OTT services via mobile devices. Digicel is advised that the TATT-KCL Fixed Customer Survey included customers who access OTT call and messaging services at home with their mobile phones. Section 1, question 1.1 asked respondents to identify the</p>

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				<p>Consistent with the Authority's approach to rely on partial substitution as the rationale for including mobile voice services in the same market as fixed telephony services, OTT voice services should also be included.</p>		<p>telecommunications services currently used at the home and listed "OTT call and messaging services accessed on your mobile phone" as a possible answer.</p> <p>Additionally, the TATT-KCL Fixed Customer Survey gives the definition for each telecommunications service, including OTT services which is defined as follows: "OTT refer to call or messaging services which are accessible via applications on your smartphones and allow you to call/message other users by using your mobile data." Popular OTT applications include WhatsApp, Skype, Viber, Google Chat, WeChat, FaceTime and Microsoft Teams." The provision of definitions and examples further reduces the potential omission of customers accessing OTT services at home from their mobile devices.</p> <p>The Authority also notes the operator's comment regarding the responses from persons who are not the head of the household, as an area of interest. Digicel is reminded that the survey was administered</p>

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						<p>consistent with the approved methodology for executing an SSNIP test. The SSNIP test necessitates that the respondent with the purchasing power, or affected by the increase in price, make the appropriate selection by choosing the likely response or action to the price stimulus.</p> <p>Therefore, a survey which focuses primarily on other members of the household (non-bill payers) may misrepresent fixed voice customers' ability to respond to a SSNIP in fixed voice services. Accordingly, for the purposes of the integrity of the TATT-KCL Fixed Customer Survey and the credibility of the survey results, the Authority was constrained to focused on respondents who have the purchasing power and direct ability to respond to an increase in the price of the service. Furthermore, taking into account the potential impact of consumers with indirect influence on purchasing fixed voice services, Digicel is asked to recall that 315 respondents (i.e., 32% of interviewees) were not the head of the household. Therefore, the survey</p>

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						<p>effectively captures the behaviour of the bill payers and their dependents.</p> <p>With respect to Digicel's comment on the inclusion of OTT services in the relevant fixed telephony market due to partial substitution, the Authority reiterates that OTT services are impacting the fixed voice market, as discussed above and detailed in section 4.3.1.2 Service Availability, Usage and Uptake and reflected in Figures 12 and 53 of the TATT-KCL Fixed Customer Survey and DIS 2021. However, at this time, mobile voice services continue to have a greater impact than OTT services in defining the domestic retail fixed telephony market. The Authority therefore considers that the fixed telephony market boundary, including mobile voice service, is robust given the evidence collated for the period reviewed. Consequently, at this time, the Authority maintains that OTT services are not in the same market as fixed telephony services but are considered to be complements for the majority of customers and partial substitutes</p>

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						for a small proportion of fixed telephony customers.
16	4.3	Are OTT Services in the Same Product Market as Fixed Voice Services?	TSTT	<p>TATT acknowledges the conditions of substitutability of OTT for fixed voice services. For example, it cites the data from the National Digital Inclusion Survey 2021: Accelerating Digital Transformation, Final Report (“DIS 2021”), table 4.9 Telecommunications OTTs used, WhatsApp is used by 75.1% of respondents, which underscores the increased use of OTTs in the country. Moreover, of persons using OTTs, 79% access the services on a daily basis.</p> <p>In its answers for the first round “Appendix II: Decisions on Recommendations from the Public Consultation on the Determination: Domestic Retail Fixed Telephony and Fixed Broadband Market Definitions” TATT several times acknowledges that there is OTT substitution:</p> <ul style="list-style-type: none"> - Page 4: TATT admitted that OTT substitution exists on the market: <i>“Complementing its forward-looking approach, the Authority goes further to indicate that there is some degree of substitution between OTT and fixed voice services (at the usage level) and that the demand for OTT services by consumers in Trinidad and Tobago is likely to increase in the future.</i> 	In the future, TATT should broaden its references to OTT-voice substitutability with the context of the voice market overall.	The Authority acknowledges TSTT’s comments on the substitutability of OTT services. TSTT is advised that the Determination details the impact of OTT services and the extent of substitution with fixed voice services, and concludes that there is not sufficient demand-side substitution, at this time, to extend the fixed telephony market (i.e., subsequent to mobile voice service) to include OTT services. The Determination indicates in section 4.3.1.1 Product Characteristics that OTT services share some similarities with fixed voice services. For example, OTT services allow users to make calls to and from international destinations. However, based on the research on OTT services’ impact on the fixed telephony market in Trinidad and Tobago, the evidence suggests that, currently, OTTs are not the main substitute of fixed voice services. The evidence collated by the Authority suggests that there is insufficient demand-side and no supply-side

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				<p><i>Therefore, the market power currently held by providers of fixed voice services may be only partially constrained by OTT services (see section 4.3.1.4. Switching Behaviour)."</i></p> <ul style="list-style-type: none"> - Page 44: <i>"The Authority acknowledges that there is a high adoption rate of OTTs in the domestic market and that the majority of fixed broadband consumers use their connection for fixed voice calls. For example, the TATT-KCL Fixed Customer Survey, Table 12, which presents the ranking of uses of fixed broadband Internet services, indicates that 62.9 % of respondents use their fixed broadband service for making calls (telephoning over the Internet/VoIP). Additionally, Figure 53, which depicts third party OTT applications used on a computer — desktop, laptop, or tablet without a SIM card, also shows that approximately 73% of fixed broadband respondents use one or more OTT applications, with WhatsApp (at 21.3%), Facebook Messenger (16.3%) and Zoom (14.5%) being the top three applications used".</i> - Page 48: <i>"...Figure 12, on the uses of fixed broadband Internet service, shows that 62.9% of respondents reported that they used the Internet for making VoIP calls. Figure 53, addressing</i> 		<p>substitutability between OTT services and fixed voice services, as shown in the TATT-KCL Fixed Customer Survey (Table 9).</p> <p>The Authority notes TSTT's statements on the distribution of actions corresponding to the 20% of respondents who selected "stop using fixed landlines to make calls".</p> <p>The operator is asked to consider the distribution of the responses of two alternative services presented in Table 9. In Table 9 respondents were invited to identify their response to a 5% to 10% increase in the price of fixed line service, which included the options of reducing fixed voice calls and using OTT calls and messaging services.</p> <p>The evidence shows that only 6.7% selected the option of using OTT calls and messaging services, whereas 15% selected the option of using mobile calls. If these percentage allocations were applied to the respondents who indicated that, in the event of a price increase, they would stop using fixed lines to make calls, mobile voice services would still</p>

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				<p><i>third-party OTT applications used on a computer — desktop, laptop, or tablet without a SIM card, reveals that approximately 72.6% of respondents use at least one OTT application. Figure 56, presenting the frequency of use of OTT third-party applications, shows that 84.2% of respondents admitted to using OTT applications several times a day.”</i></p> <p>TATT's key argument that OTTs remain only <i>partially</i> substitutable with fixed voice services and do not entirely is based on TATT's interpretation of results in Figure 25 “Distribution of actions that would be taken if fixed landline service price was increased” that only a small volume of customers (i.e., less than 10% of the relevant respondents) would switch from fixed voice to OTT services on a call basis. This conclusion is not fully correct, and Figure 25 should be analysed further.</p> <p>As can be seen in Figure 25 “Distribution of actions that would be taken if fixed landline service price was increased”, there is a separate answer with more than 20 % of respondents “stop using fixed landlines to make calls”. This group of respondents definitely will not stay without any communication, which means that they indirectly answered that they will mostly shift to other</p>		<p>account for the largest share of substitution and be considered the primary substitute for fixed voice services. Therefore, even where 20% of customers who opted to discontinue or stop the use of fixed voice service are reasonably reapportioned across the remaining customer segments, OTT services would not form part of the relevant fixed domestic retail voice market at this time.</p> <p>For completeness, the operator is asked to also review Table 9 of the TATT-KCL Fixed Customer Survey (“Action to be taken if fixed landline service price were increased”), which provides that mobile calls are considered the most substitutable with fixed voice services, and not Figure 53 (“Third party OTT application used on computer: desktop, laptop, or tablet without a SIM card”) as previously identified by the operator.</p> <p>The Authority considers that an HM providing both fixed and mobile telephony services may be able to retain a significant portion of customers in the event of a SSNIP</p>

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				<p>call options such as OTT or mobile. Since OTTs are more affordable, most probably, most of them will use OTT. Thus, several answers related to OTT in Figure 25 are representative of substitution:</p> <ul style="list-style-type: none"> - make fewer calls but use OTT calls instead; - make fewer calls, but use OTT messaging instead; and - stop using fixed landlines to make calls. <p>It can be concluded that approximately 30% of respondents could substitute fixed voice calls with OTT, which is a significant amount.</p>		<p>and sustainably increase its prices. Therefore, the Authority considers that fixed and mobile telephony services form a relevant market and, based on the evidence presented above, should not be extended to include OTT services at this time.</p>
17	4.3	Are OTT Services in the Same Product Market as Fixed Voice Services?	TSTT	<p>With respect to OTT and voice service substitutability, TATT continues to refer to the context of OTT and <i>fixed</i> voice services. Now that TATT has acknowledged that fixed and mobile voice services are part of the same market, TATT should speak in terms of OTT's role in the voice market overall. In such circumstances, we note that the trend of OTT substitution is confirmed with results from the 2023 TATT-KCL Mobile Customer Survey, i.e., Table 18, in response to the question regarding action to be taken in response to an increase in the price of mobile calls, 31% responded that they will make fewer calls but use OTT calls instead.</p>	<p>In the future, TATT should broaden its references to OTT-voice substitutability with the context of the voice market overall.</p>	<p>The Authority acknowledges TSTT's comment and recommendation regarding whether OTT services should be included in the same product market as fixed voice services.</p> <p>The Authority notes TSTT's view of the relationship between OTT services, mobile voice services and fixed voice services. However, the Authority advises the operator that the relationship between fixed voice and mobile voice services is not symmetric or linear, since there is not a direct substitution between fixed voice and mobile voice (as customers do not switch from mobile voice to</p>

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						<p>fixed voice in similar proportions or between fixed voice and mobile voice services vice versa).</p> <p>Rather, the operator is reminded that the nature of substitution between fixed voice and mobile is asymmetric and based on usage (as customers switch from mobile voice to fixed voice disproportionately vice versa). Recall sections 4.1.1.4 Switching Behaviour and 4.1.3 Preliminary Conclusions of the Determination, which highlight the difference in substitution between fixed and mobile voice services and vice versa.</p> <p>Further, the evidence suggests that currently, OTT services are not the main substitute of fixed voice services but were found to have a lower degree of substitution than mobile voice with fixed voice services (see the Determination, Figure 25 Distribution of actions that would be taken if fixed landline service price was increased). In keeping with international established definition of a relevant market, which identifies the smallest scope of services upon which an HM may</p>

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						<p>profitably increase tariffs (ITU, World Bank 2022³ (<i>European Commission 2022</i>), the Authority considers that an HM providing both fixed and mobile telephony services may be able to retain a significant portion of customers in the event of a SSNIP and sustainably increase its prices.</p> <p>Therefore, given the findings that mobile voice services are more substitutable with fixed voice services than OTT services, in addition to the evidence collated which suggests that OTT services are substitutes for fixed voice by a small or marginal proportion of respondents, the Authority is without basis to amend the fixed telephony market definition at this time.</p> <p>The Authority acknowledges the operator's comments that this position may change in the future as the market progresses. Therefore, as the market evolves, the Authority will continue to monitor changes in</p>

³ Pursuant to the ITU, World Bank (2022) "ICT Market analysis and determination of dominance guidelines", a relevant product market is defined as the smallest group of products in which a sole profit-maximizing seller (a hypothetical monopolist) would impose and maintain a small but significant and non-transitory price increase (SSNIP) (<https://digitalregulation.org/ict-market-analysis-and-determination-of-dominance-guidelines/>).

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						the telecommunications sector and amend market definitions where necessary. The Authority proposes to review the market definition in the next three to five years.
18	4.3.1.3.	Relative Prices	Digicel	<p>It is not clear why the Authority has sought to dismiss the relevance of OTT services on the basis that a “<i>consumer knows their contacts are on the same OTT platform</i>” and calls from OTT apps such as Skype and Viber to ordinary fixed and mobile telephone numbers are relatively costly.</p> <p>In Digicel’s view, the Authority’s concerns about customers needing to know which OTT platform their contacts are on can be allayed for two reasons. Firstly, as the Authority itself notes at section 4.3.1.1 of the Consultation Document “<i>The TATT-KCL Fixed Customer Survey records that WhatsApp is the most popular application and TATT’s 2021 Digital Inclusion Survey (DIS 2021) reports that 75% of the population use this application. These services no longer require the end user to open the OTT software to make a call resulting in a more convenient user experience with OTT services, thus improving customers’ functional ability to switch between fixed telephony services and OTT services</i>”.</p> <p>Customers’ willingness to use OTT services can be seen clearly in the market research undertaken by the</p>	Consistent with the Authority’s approach to rely on partial substitution as the rationale for including mobile voice services in the same market as fixed telephony services, Digicel recommends that the Authority gives further consideration to the inclusion of OTT voice services in the same market as domestic fixed telephony services.	<p>The Authority acknowledges Digicel’s comments and reminds the operator that the Determination (published for the second round of public consultation) does not require “the app to be open”, as per section 4.3. , The Determination outlines in section 4.3 that “OTT call service users require an Internet connection as well as a personal device (for example, a mobile phone, tablet, or laptop), and must install the OTT provider’s software/application (app) in order to use those services. This applies to both the party making the call/message and the receiver of the call/message”.</p> <p>Furthermore, the Determination states that OTT services share similarities with fixed voice services (see section 4.3.1.1. Product Characteristics).</p> <p>The Authority reminds Digicel of the asymmetric nature of the relationship</p>

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				<p>Authority in connection with its Consultative Document <i>Framework on Over-The-Top Services (OTTs) in Trinidad and Tobago</i>, which was published on 25th August 2023. On page 12 of that Consultative Document the Authority stated:</p> <p><i>“From a purely demand-side perspective, the National Digital Inclusion Survey 2021 (DIS 2021) showed that a significantly high proportion of the local population (83%) reported that they used OTTs. For persons using OTTs, 79% access the services on a daily basis”.</i></p> <p>In this context where more than 75% of the population use a single OTT app and the price of doing so is essentially “free”, Digicel does not consider the Authority’s concerns to be relevant in any consideration of whether or not OTT voice calls can substitute for traditional voice calls.</p> <p>Moreover, customers invariably have access to more than one OTT app so have multiple options for making and receiving calls. This, coupled with the near ubiquitous take up of WhatsApp, both in Trinidad and Tobago and internationally, demonstrates that very few customers would face any practical constraint in using OTT voice calls as a substitute for fixed voice calls.</p>		<p>between fixed voice, mobile voice and OTT services (as customers switching from fixed voice to mobile voice and vice versa is markedly disproportionate).</p> <p>The Authority reiterates that it has not dismissed the relevance of OTT services on the basis that the “a consumer knows their contacts are on the same OTT platform” and “calls from OTT apps such as Skype and Viber to ordinary fixed and mobile telephone numbers are relatively costly”. Digicel is asked to note section 4.3.1.2 of the Determination, which details the uptake of OTT services domestically and states: “According to DIS 2021, a high proportion of the population of Trinidad and Tobago (83%) reported using OTT services, with the majority accessing them through fixed broadband connections at home (86%). The most common third-party applications used were notably WhatsApp (75%), followed by Facebook Messenger (43%)” and not Skype and Viber.. Skype and Viber were mentioned in section 4.3.1.3 Relative Prices, along with other free OTT services, namely, WhatsApp,</p>

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				<p>Digicel also does not understand the Authority's apparent reliance on customers' use of Skype and Viber to support its contention that OTT calling is not a substitute (or partial substitute) for fixed calling.</p> <p>As DIS 2021 shows, only 1.6% of respondents use Skype (compared with 75.1% using WhatsApp and 43.1% using Facebook Messenger) and Viber is not even mentioned. In the circumstances, there seems to be little relevance in the Authority's analysis of calling costs using Skype and Viber when their uptake is so limited and calls using predominant apps such as WhatsApp and Messenger are effectively free.</p> <p>Section 3.4.6, Page 53 of the TATT-KCL Fixed Customer Survey does not capture Viber as one of its questionnaire response options for third-party OTT applications. Upon review of the findings of the aforesaid section, it was also observed that use of Skype was applicable to only 2% of respondents. Hence, there is no apparent justification for the selection of Viber and Skype to inform the Authority's analysis and findings on relative prices/calling costs considering the limited uptake of Skype and the non-usage of Viber by its respondents.</p>		<p>as examples for completeness. In this section of the Determination, OTT service users were noted as incurring no charge, recall section 4.3.1.3 which states "in most cases, with no applicable charge per call or message sent or received", thus limiting their impact on the Determination.</p> <p>Additionally, the Determination indicates that "most OTT consumers use the platforms to make intra-platform voice or video calls or send messages".</p> <p>Furthermore, the Authority also agrees that the relative prices of OTT applications permit demand-side substitutability. This was noted in section 4.3.1.3 which states "In general, OTT applications are downloadable either free of charge or for a very low fixed fee (for example, WhatsApp previously cost US\$0.99 per year and is now free"=. The Authority, however, notes the statement that "relative prices can limit demand-side substitutability between fixed voice and OTT services". The Determination has been revised to state that "relative prices can</p>

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						<p>support demand-side substitutability between fixed voice and OTT services”, for consistency within the document.</p> <p>In addition, Digicel is reminded that, in accordance with international standards, the methodology requires that the market be defined by the smallest scope of services upon which an HM can profitably maintain a price increase. Given the marginal uptake of Skype and Viber, the impact of those apps on the profitability of the HM and the market boundaries contained in the Determination is insignificant.</p> <p>Digicel is reminded that the evidence suggests that, at this time, OTT services are not the primary substitute of fixed voice services, as they were found to have a lower degree of substitution (6.7% of respondents) than mobile voice (15% of respondents) with fixed voice services. Therefore, based on the evidence collated by the Authority for the period 2018 to 2022, the level of substitution between fixed voice and OTT services domestically is still not sufficient to extend</p>

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						<p>the relevant fixed telephony market (i.e., subsequent to mobile voice services) at this time.</p> <p>The Authority will continue to monitor changes in the telecommunications sector and amend the relevant market definitions where necessary as the market evolves.</p> <p>The Authority proposes to review this Determination within the next three to five years.</p>
19	4.3.1.4	<p>Switching Behaviour</p> <p><i>Furthermore, as illustrated in Figure 26, the majority (60%) of respondents using OTT applications also stated that the availability of</i></p>	Digicel	<p>Digicel suggests that the 40% and 28% figures reported in the TATT-KCL Fixed Customer Survey may understate the degree to which customers use OTT voice calls and messaging in preference to fixed voice calls. That is because, in all cases, the terms of the survey required respondents to be the bill payer rather than the actual users of the service. This would mean that the usage patterns and preferences from other members of a household or business sharing the same connection were not taken into account.</p> <p>This perhaps also explains the differences seen between some of the numbers in the National Digital Inclusion</p>	<p>Consistent with the Authority's approach to rely on partial substitution as the rationale for including mobile voice services in the same market as fixed telephony services, Digicel recommends that the Authority gives further consideration to the inclusion of OTT voice services in the same market as domestic fixed telephony services.</p>	<p>The Authority acknowledges Digicel's comment on the inclusion of OTT services as part of the same market as fixed voice services, based on partial substitution.</p> <p>The operator is reminded that the relationship between fixed voice and mobile voice is not linear or symmetric, since there is not a direct substitution between fixed voice and mobile voice (as customers do not switch from fixed voice to mobile voice services and vice versa proportionately).</p>

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		<p><i>these services had no effect on their usage of fixed voice services. For the remaining 40%, who did report a change, only 28% mentioned making fewer fixed calls from their fixed landline. Therefore, the market power held by providers of fixed voice services may be only partially constrained by customers switching to</i></p>		<p>Survey 2021 (DIS 2021) and the TATT-KCL Fixed Customer Survey.</p>		<p>Further, the evidence indicates that, at this time, OTT services are not the primary substitute of fixed voice services, as they were found to have a lower degree of substitution than mobile voice with fixed voice services. Consequently, in keeping with international standards which dictates that the relevant market is defined by the smallest scope of services upon which an HM may profitably increase the service tariffs, the Authority considers that an HM providing both fixed and mobile telephony services may be able to retain a significant portion of customers in the event of a SSNIP and sustainably increase its prices.</p> <p>Digicel is asked to recall the TATT-KCL Fixed Customer Survey, Table 9 Action to be taken if fixed landline service price were increased, which shows the degree of substitution between fixed telephony services and alternative services (including OTT call and messaging services).</p> <p>The Authority notes that, although OTT services are present in the mobile market, the degree of substitution, as evidenced by</p>

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		<i>OTT services on a call or usage basis.</i>				<p>customer switching patterns (6.7% of respondents), their presence is not sufficient to include OTT services in the fixed voice market at this time, and to also satisfy the HM SSNIP test requirement of being the smallest group of services upon which a price increase is likely to be profitable.</p> <p>The Authority asserts that OTT services' impact was not understated in this exercise or the Determination. Specifically, Figure 53 in the TATT-KCL Fixed Customer Survey shows respondents' views on the demand for OTT services. According to the survey, 7% (27 out of 413) do not use third party or OTT applications. This result is consistent with the findings of DIS 2021, which reiterate that a significantly high proportion of the local population (83%) reported that they use OTTs.</p> <p>Additionally, section 4.3.1 of the Determination further highlights the use of OTT services, stating that the TATT-KCL Fixed Customer Survey "reveals that most fixed Internet users (62.9%) reported that they use the Internet for making VoIP calls".</p>

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						<p>However, continued uptake of fixed voice services and the strong degree of substitution with mobile services indicate that the smallest scope of services upon which a price increase is likely to be profitable, include fixed voice and mobile services and hence suggest that fixed voice and mobile services form a relevant market, as per the HM SSNIP test.</p> <p>Additionally, the total number of fixed voice subscriptions has continued to grow in recent years (at an annual rate of 0.19%), further suggesting that a significant proportion of end users think of these services as complements and as partial substitutes.</p> <p>The Authority notes the operator's repeated comment regarding the responses from users who are not the head of the household. Digicel is asked to note the Authority's earlier response, outlined in item 15 above, which clarifies that the SSNIP test necessitates that respondents with purchasing</p>

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						<p>power select their likely response or action, to the price stimulus.</p> <p>Accordingly, for the purposes of the integrity of the TATT-KCL Fixed Customer Survey and the credibility of the survey results, the Authority focused on respondents who held purchasing power and the direct ability to respond to an increase in the price of the service.</p> <p>Additionally, the operator is asked to recall that 315 respondents to the TATT-KCL Fixed Customer Survey (i.e., 32 % of interviewees) were not the bill payers, i.e., not the head of the household.</p> <p>Digicel is reminded that the survey was administered by an independent, experienced, local consultant using industry best or international standard practices and, as such, the results obtained are transparent and robust.</p>

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						<p>Given the scope of the TATT-KCL Fixed Customer Survey and the additional evidence derived from service providers of fixed telecommunications services, including their quantitative data submissions and qualitative RFI submissions; the annual market data reports; operators' tariffs; international benchmarks; and other market research, the Authority is satisfied that the market boundaries established in this Determination are evidence-based, robust, balanced and informed by international best practices and domestic factors. The Authority is without sufficient bases to amend the domestic retail telephony market boundary to include OTT services, at this time.</p> <p>The Authority proposes to review the Determination in three to five years and we look forward to all stakeholders' participation.</p>
20		Closing Comments	CCTL	The Authority states that given the dynamism of communication services, forward-looking developments in the fixed telephony and broadband markets at the technology and market levels and evolving trends in OTT applications, it considers that the definition for the fixed voice market should be reviewed within the next		<p>The Authority acknowledges CCTL's closing comments.</p> <p>The Authority agrees with CCTL that forward-looking developments and evolving trends in OTT applications should also be considered in future fixed market definition</p>

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				<p>three to five years. During the fifteen years lapse between the 2009 the previous fixed voice market assessment and these current proceedings, the market has evolved due to technology and market changes. All relevant measures point to substitutability between functionally similar fixed voice and OTT voice applications. Given the urgent challenges facing the industry, including regulatory imbalances and resulting market harm, a three-to-five-year delay in coming to the correct market assessment decision will retard the robust and sustained development of the sector.</p>		<p>assessments. That approach is in keeping with this Determination, in which the Authority has taken into consideration developments including future technological trends, 4G penetration and 5G network build-out, shifts in consumption patterns in the post-pandemic era, market trends such as full (access) and partial (usage) substitutability, and continued advancements in OTT applications.</p> <p>The operator is informed that the Authority's position adopted in the Determination is based on a robust set of qualitative and quantitative data and evidence, including benchmarking studies, economic tests, econometric analysis, network modelling, market surveys or analyses, peer reviews, and international and regional agreements.</p> <p>The evidence suggests that, currently, OTT services do not form part of the fixed telephony market at this time.</p> <p>The Authority maintains that the fixed voice market definition should be reviewed in the next three to five years, in accordance with</p>

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						<p>international standards whilst taking into account domestic market constraints, such as the rate of technological rollout and changes in consumers' taste and preferences (ICT Market analysis and determination of dominance guidelines, Digital Regulation Platform, 2022).</p> <p>However, where market dynamics change materially, the Authority will review the position concluded in the Determination. The Authority looks forward to timely data submissions from all operators in future assessments.</p>