

EXECUTIVE COUNCIL

PUBLIC

Title: Broadband Quality of Service Probes

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Responsible Director: Attorney General

Report Author: Communications Regulator

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Reason for paper: This paper is submitted to Executive Council:

For policy decision (including budgetary policy)
For policy update/information

Publication: Yes redactions as highlighted.

Reason for Redactions:

Under Executive Council Standing Order 23(2), Executive Council must have regard to the categories of exempt information in Schedule 3 to the Committees (Public Access) Ordinance when determining if information should be withheld

*The categories which are potentially relevant to this paper are:
Paragraph 10 – Information about relevant contracts and negotiations*

Previous papers: None

List of Documents:

1. Recommendations

Honourable Members are recommended to:

- (a) Approve the acquisition of 12 broadband probes at a total cost of **REDACTED** to enable the measurement of fixed and mobile broadband performance (Option 2 Para 8.1.2).
- (b) Approve FIG expenditure of **REDACTED** recurring annually.

- (c) Note that Sure will make a **REDACTED** contribution of **REDACTED** to CAPEX costs only.
- (d) Refer to Standing Finance Committee for financial approval

2. Additional Budgetary Implications

	2020/21	Annual Recurring	
Operating Budget	REDACTED	REDACTED	
	2020/21	2021/22	Total Project (3 Years)
Capital Budget	REDACTED	REDACTED	REDACTED

2.1 REDACTED

3. Executive Summary

3.1 The Regulator’s decisions must be supported by evidence. However, measuring the performance of Sure broadband has not been possible to date. Sure uses quality of service probes to provide quality of service data successfully in other jurisdictions. The acquisition of the probes must be supported clear placement, agreed locations, key performance indicators and plans for collection and reporting and analysis and conclusion. There are 3 options for acquisition: deploy broadband probes in Stanley only; deploy broadband probes across the Islands or deploy probes to measure voice and broadband across the Islands. Option 1 is too limited and Option 3 too expensive. Option 2 offers the best balance of cost and effectiveness. Sure have agreed to pay **REDACTED** whichever is the smaller value. This proposal requires new money. Funding for the probes was not included in the 20/21 planning round. There are no HR, Legal or Environmental and Sustainability implications. There is a risk of cost growth. This proposal was subject to consultation with CE FIG, Dir DCIS and Sure and circulated for Director comment on 3 Feb 21. MLAs were briefed in outline on 27 Nov 20. This is a positive step forward which will address a long-standing problem.

4. Background and Links to Islands Plan and Directorate Business Plan

4.1 The Regulator’s decisions must be fair, proportionate and supported by evidence. The Regulator has, on 17 Dec 20, issued Sure SA Ltd (Sure) with a Direction requiring them to report quarterly on a range of performance measures. However, Sure are unable to measure the broadband data rate experienced in different parts of the network – a key measure of performance for the Regulator. The Exclusive Licence doesn’t require Sure to provide for this type of capability.

4.2 Measuring the performance of Sure Broadband services has been a continuing requirement and is an ongoing source of debate and frequent friction with Sure. Ideally this should be done by an independent body. However, due to the size of Sure’s customer base, it has not been possible to find a company willing to do it. Sure uses quality of service technologies to provide quality of service data successfully in other jurisdictions.

4.3 This requirement supports The Islands Plan: Economic Development objective “Introduce appropriate regulation to protect consumers, and encourage diversification and economic growth.”

4.4 The Regulator's Business Plan sets the delivery of a Consumer Safeguards Framework as a priority for 2020/21. This will be achieved by the development of the Consumer Safeguards Policy, following a consultation in 2020, and the issuing of the Direction set out at Paragraph 4.1. The acquisition of the probes enables Sure to report against the full range of measures in the Direction.

4.5 The probes will provide Sure with useful network management information.

5. Requirement. The following capability is required:

5.1 **Measurement.** The core of the capability must enable the measurement of the data rate of broadband at representative locations in the network. Fixed and mobile broadband performance must be measured.

5.2 **Management System.** The probes must be connected over the network using management channels to the hub which manages the tasking of the probes and stores the data and information from the probes. The management system must also include configuration and reporting tools to enable probes management and the preparation of reports for the Regulator.

5.3 **Spares.** The capability must include one on-island spare probe to minimise any drag in the repair chain.

5.4 **Installation and Commissioning.** The capability acquired must include installation and project management services plus remote consulting to successfully deploy the capability. Maintenance and support must be provided for a minimum of 3 years.

6. System Operating Concept

6.1 This operating concept will be developed more fully with Sure during the acquisition process.

6.2 **Probe Placement.** The probes will be deployed within the broadband network both in Stanley and Camp. Probes will not be deployed within consumer premises as measurement and reporting could affect broadband allowances, the probes would consume household electricity and access and management would be beyond Sure's control.

6.3 **Locations.** The probe locations will be a compromise between achieving representative measurements in the network and locations where deployment of the probes will minimise the overheads for Sure. Geographic balance between East Falkland, West Falkland, the Islands and Stanley and technology balance between WiMax and MSAN served customers must also be maintained.

6.4 **Collection and Reporting.** Data collection will be automated. Collating and reporting will be subject to agreement between Sure and the Regulator on how data is to be presented.

6.5 **Key Performance Indicators (KPIs) and Targets.** In the period prior to probe deployment, a suitable KPI for broadband data rates. An initial operating capability target will be set which will be reviewed after 3 months of data.

6.6 **Analysis and Conclusions.** Sure will present the probe data quarterly along with other performance reporting. The Regulator will analyse the collected data against the KPIs and targets. The Regulator will develop a policy in conjunction with Sure covering how missed and overachieved KPIs are to be treated.

7. **Timings.**

7.1	FIG Approvals	Feb/Mar 21
7.2	Acquisition and Delivery	Apr- Jul 21
7.3	Installation and Commissioning	Aug/Sep 21
7.4	Initial Operating Capability	1 Oct 21
7.5	Full Operating Capability	1 Jan 22

8. **Options and Reasons for Recommending Relevant Option.**

8.1 All options assume that the project procures the same probes used by Sure in other jurisdictions to minimise technical risk. There are 3 options for the delivery of broadband quality of service performance data:

8.1.1 Option 1 - Probes to Measure Stanley Broadband Performance. Probes are purchased to measure the performance of the broadband service in Stanley and the immediate area at a cost of £62,500. Option 1 would deploy 2 fixed broadband probes and 1 mobile broadband probe to provide representative fixed and mobile broadband data rate measurements for customers in Stanley (over 80% of Sure's customers) but not in Camp where there is likely to be the greatest variation.

8.1.2 Option 2 - Probes to Measure Stanley and Camp Broadband Performance. Probes are purchased to measure the performance of the broadband service in Stanley and across Camp at a cost of £113,200. Option 2 would deploy 12 probes across the network to provide representative fixed and mobile broadband data rate measurements for all Sure customers.

8.1.3 Option 3 - Probes to Measure Stanley and Camp Broadband and Voice Performance. Probes are purchased to measure the performance of both broadband and voice services in Stanley and across Camp at a cost of £190,300. Option 3 would deploy 12 broadband and 6 voice probes across the network to provide representative broadband data rate measurements and service quality for voice services for all Sure customers

8.1.4 Analysis of Options. Option 1, while the least expensive doesn't provide performance data from Camp arguably the most important area for collection. Option 2 focuses on broadband and collects data across the network thus providing a sound measure of broadband performance. Option 3 extends the collection of performance data to voice services. However, the probe capabilities are not best suited to the voice technologies used in the Sure fixed and mobile voice network.

8.1.5 Selection of Preferred Option. Option 1 does not meet the requirement and is not considered further. Option 3 is not cost effective, particularly as voice probes are twice as expensive but less effective. Option 2 focuses on fixed and mobile broadband, the core requirement, and collects across the network and technology types. Option 2 is cost effective and is selected as the preferred option.

9. Resource Implications

9.1 Financial Implications.

This proposal requires new money. Funding for the probes was not included in the 20/21 budget planning round.

9.2 Human Resource Implications.

There are no HR implications. Work arising from the operation of the probes by Sure and the analysis of reporting by the Regulator will be absorbed into current roles.

9.3 Other Resource Implications.

None.

10. Legal Implications

None.

11. Environmental & Sustainability Implications

None.

12. Significant Risks

12.1 There is a financial risk that the baseline cost and the discount available may change as the quote was made by Sure on 18 Nov 20.

12.2 There is a presentational risk that, if made public, the public would not support the expenditure on broadband probes.

13. Consultation

13.1 Both CE FIG, Dir DCIS and Sure were consulted during the development of the proposal. MLAs were briefed in outline on 27 Nov 20. The paper was circulated for Director comment (Treasury, HR, AG, Dir PED and Dir DCIS) on 3 Feb 21.

14. Communication

14.1 This is a positive step forward which will begin to address a long-standing problem. MLAs may wish to brief the media.