MEETING OF THE TECHNOLOGY DEVELOPMENT GROUP PUBLIC SUMMARY

Friday 25 June 2021

Present:	Andy Keeling Catherine Silva Donayre	CE DDCS	Chief Executive (Chair) Director of Development & Commercial Services
	John Whitby	CR	Communications Regulator
	Christian Williams	CW	Information Technology
	Gareth Goodwin	GG	Chamber Technology Lead
	James Bates	JB	Falkland Islands Fishing Companies Association
	Justin McPhee	JMP	Sure
	Lewis Clifton	LC	Rural Business Association
	Marcus Morrison	MM	Construction Sector
	Paul Brickle	PB	SAERI
	Pippa Christie	PC	Hydrocarbons
	Stephanie Middleton	SM	Falkland Islands Tourist Board
Apologies:	Geoff Baxter	DDDCS	Deputy Director of Development & Commercial Services
	Becky Evans	BE	BFSAI Representative
	Chris Mountford	CM	Information Technology
	Mike Ford	MF	Community Representative
	No representative		Retail Sector
Minutes:	Meghan Law	EA	Executive Assistant & TDG Secretary

1.0 Confirmation of the minutes of the meeting held on 19th February 2021

The minutes of the meeting held on the 19th February 2021 were confirmed as a true and accurate record.

2.0 Matters arising from the minutes of the meeting held on the 19th February 2021

2.1 TOR and Membership – Item 2.0

EA confirmed that she had updated the membership to include the community, BFSAI and SAERI representatives. TOR and Membership was discussed further in Item 3.0 of the main agenda.

- 2.2 <u>Sure Improvement Update Item 4.0</u> JMP noted that an update will be given within the main agenda under Item 4.0
- 2.3 <u>Proposed Business Broadband Survey Item 5.0</u>
 It was confirmed that a preamble was added to the Business Broadband Survey in advance of its release.
- 2.4 <u>Proposed Meeting Dates for 2021 Item 7.0</u>
 EA advised that all meeting dates have been circulated and have been populated in diaries.
- 2.5 <u>Any Other Business Public Information TDG Item 8.1</u> EA confirmed that a public survey was created following the last meeting and will continue going forward. EA explained that it will be circulated within FIG, to those who request to be on the distribution group and to TDG members; it is the responsibility of TDG members to further circulate the Public Summary to those within their sector areas.

3.0 TOR and membership

GG queried if some deliverables could be outlined within the TOR; CE suggested that an agreed work programme could be included reflective of the Group objectives. Is was agreed that an annual programme would be better placed due to the pace in which the industry moves.

EA confirmed that the membership section has been updated to reflect the additional representatives.

It was agreed that a definition of "broadband services" within the remit of the TDG should be added under the Objectives section within the TOR.

An additional note will be added to reflect the public summary.

4.0 Sure improvements programme

JMP gave a presentation to TDG which is attached to the public summary and the minutes.

An overview of Sure network within the Falklands was given as well as details for the 2021 projects. CE queried if the 2021 projects listed are Sure commercial decisions or following on from recommendations made by the TDG; JMP confirmed that it is driven by commercial activity and the technology industry.

JMP outlined the Camp improvement progress and planned activities for 2021. LC queried if a date has been confirmed for VHF expansion completion; DDCS confirmed that she will be reviewing the proposal received from Sure recently for the additional site at Leicester Hill. JMP advised that there is some lead time on equipment procurement however it is hoped that the work will be completed before Christmas.

JMP advised that Sure are currently undergoing work to show the 4G data coverage maps in a sensible way. PB asked what type of coverage would you expect to have in a light blue area; JMP advised that it would be a low-level signal-likely to work with 4G however 2G would drop out due to the time-based issue. LC noted that the new coverage map shows little service to the south of West Falkland; JMP explained that this is due to the geographical topography. JMP informed TDG that the kit to increase coverage has been procured.

JMP detailed internet utilisation. PB commented that behaviours may change over time as more capacity becomes available; LC agreed stating that previously behaviour has been conditioned as a result of the capacity limitations.

JMP stated that the largest traffic comes from Netflix at 13.7TiB, with 3 out of the 4 top sites being video based. LC highlighted the benefits, if possible, to have options for educational and healthcare tools. CE commented that it is interesting to see how the trend has changed after capacity has been increased, to a similar trend the UK has. CE queried if trend use can be separated into residential and business; JMP advised they cannot at this stage.

TDG talked about restricted travel in the future as part of Covid and how technology may expand further to support virtual meetings.

JMP shared an updated version of the business broadband packages, noting that it excludes farmers who mainly use their residential line for business purposes too.

JMP detailed the future activity post 2021, highlighting that there is a multi-year commitment to FIG.

TDG discussed how best to engage, in addition to the Business Broadband Survey, with businesses to see what might be required in the future.

CE thanked JMP for the update.

5.0 Presentation on the Business Broadband Survey

CR outlined the previous business broadband survey explaining that there was a stronger response to the residential survey and gave a presentation which has been attached to the minutes. Comments from the presentation are detailed below:

- CR detailed that there were 31 respondents, some of which may be duplications due to a crossover of sector distribution lists. CR queried if the TDG think this shows a strong representative of the business community at only 17% of responses.
- PB queried why there is a dip in businesses on the large package who responded; CR explained that the results are skewed due to the nature of respondents.
- It was established that reliability and speed are recognised as the most important factors for businesses.
- CR gave a summary of the way in which businesses use broadband services with nearly half of businesses stating that the speed is not good enough to support services.
- It was noted that the next step most want to move onto is online payment systems. JMP noted that many local businesses now use Square for payment systems.

TDG noted that it was a shame more businesses didn't respond however at the time other surveys were also running which may have impacted responses. CE commented that alongside surveys there are other mechanisms to get feedback so that an informed programme can be established. MM stated that representatives should encourage those within their industry to partake in surveys and aid where needed. DDCS suggested that one or two members feedback at each meeting; it was agreed that EA would pull up a rota to facilitate this.

JB noted that the survey results contradict the presentation given by Sure in that businesses want more capacity however JMP had previously advised that capacity is not yet being reached. DDCS explained that the business broadband survey helps to build a picture for future demands.

CR advised that the presentation will be made public; PB requested that caveats are added to explain that the data is skewed due to the low number of responses.

6.0 Any other business

6.1 Starlink Petition

MM advised that he has been running a Starlink Petition locally and has so far had 241 people interested in testing the Starlink service which will be beta tested next year in the Falklands. JMP advised that Sure are in contact with alternative service providers. JMP stated that an update will be given following the next review.

6.2 VDSL/ADSL Improvements

CW stated that a number of customers now have multiple locations that they operate from and queried if any VDSL/ADSL improvements are in the plan; JMP advised that Sure are committed to Camp improvements in 2021. JMP noted that all businesses are different and if they have bespoke requirements they should contact Sure directly.

6.3 Local Data Transfer

PB queried if local data transfer will be explored; JMP advised that this will form part of the strategic review.

6.4 <u>Public Summary of the TDG</u>

MM queried if the minutes of the meeting will be made public. CE and EA stated as per Items 2.5 and 3.0 a public summary will be made and shared. CE noted the importance of being as transparent as possible however the full minutes cannot be made public due to commercial sensitivities.

7.0 Confirmation of date of next meeting : 17th September 2021

7.1 EA confirmed the next meeting of the Technology Development Group is scheduled to take place on Friday 17th September 2021 at 13:30 in the Liberation Room, Secretariat.

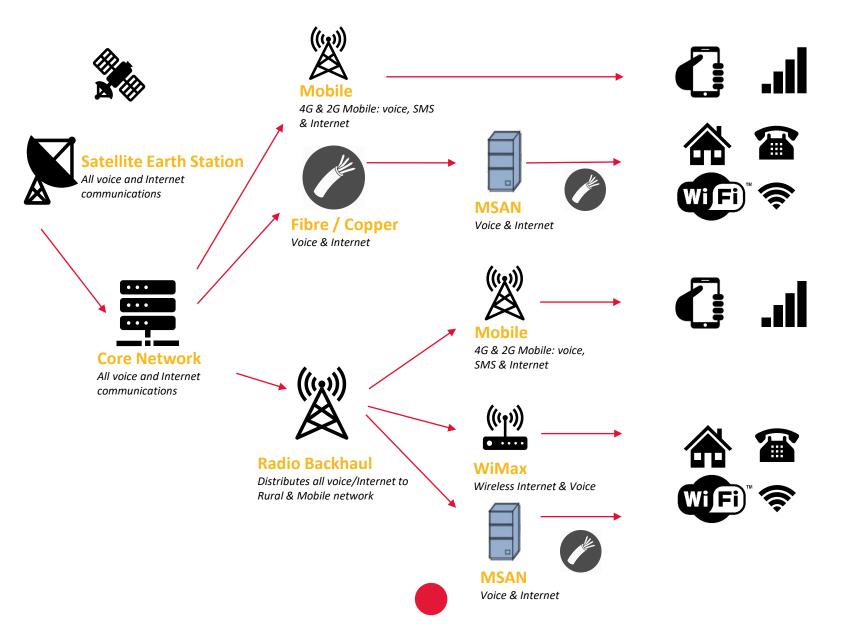
There being no other business the meeting closed at 14:50hrs.

Sure Falklands

TDG Briefing June 2021



Sure Falkland's Network



Investments/Project Updates



2021 Projects

- 4G expansion
- WiMAX replacement
- Rural MSAN expansion
- In Country Transmission links
- QoS Probes
- Fixed Line expansion
- Standby Power/Generators
- Vehicles
- Building and infrastructure



Camp Improvement

2021 Progress

- LTE testing and network integration
- 2 additional camp MSAN deployments completed
- Installation began of 3 LTE Base Stations
- Cerro Monte Site upgrade
- 4 MSAN sites ordered
- 4 Microwave radio links ordered
- 2 LTE Base Stations & 40 CPE ordered
- Additional battery replacement completed
- Completed FIG VHF network
- Completed Mobile network Drive testing



Camp Improvement

2021 Planned Activities

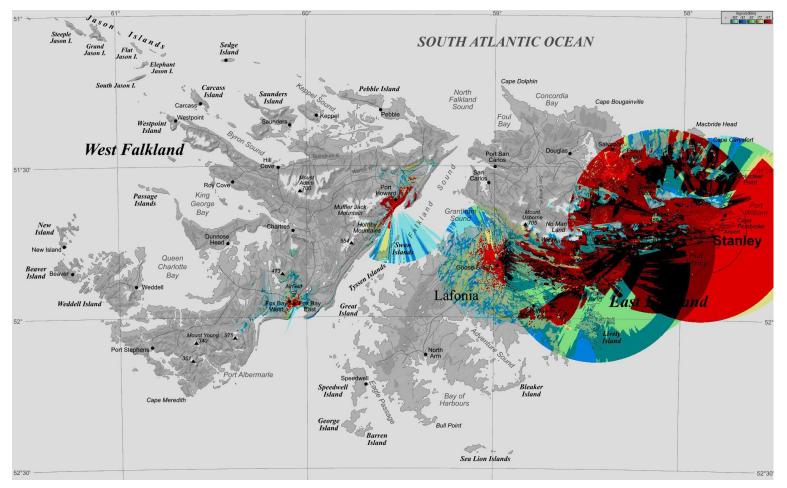
- 3 x radio links and MSAN set ups to install, Johnson's Harbour, Hope Cottage/Douglas, Mullet Creek
- Replacement radio link to install between Earth Station and Mt Kent and from Wreck Gate to Coast Ridge and Coast Ridge to Leicester Hill.
- WiMAX site replacements, Malo, Cerro Monte, Mount Pleasant Peak, Leicester, Sapper Hill & Sussex Mountain and all associated subscriber installations (105 customers).
- Mobile 4G expansion
- VHF expansion
- Publish new mobile coverage maps



4G Mobile Expansion

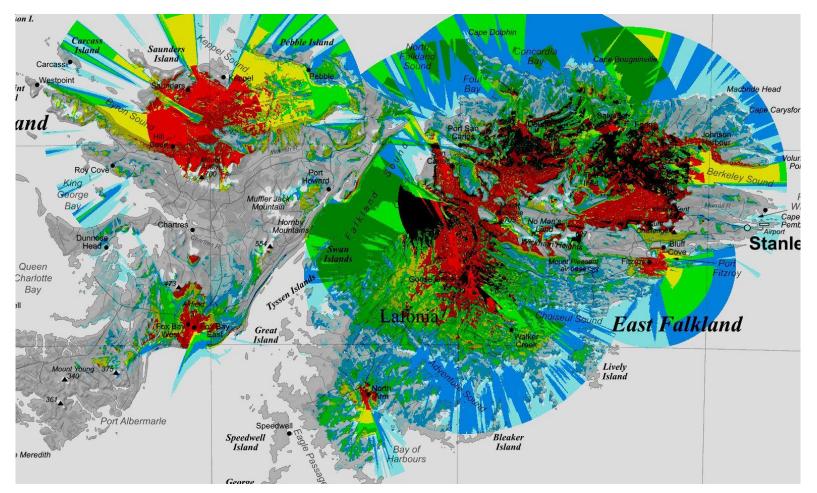


Existing 4G coverage





New 4G Coverage (excludes existing 4G)

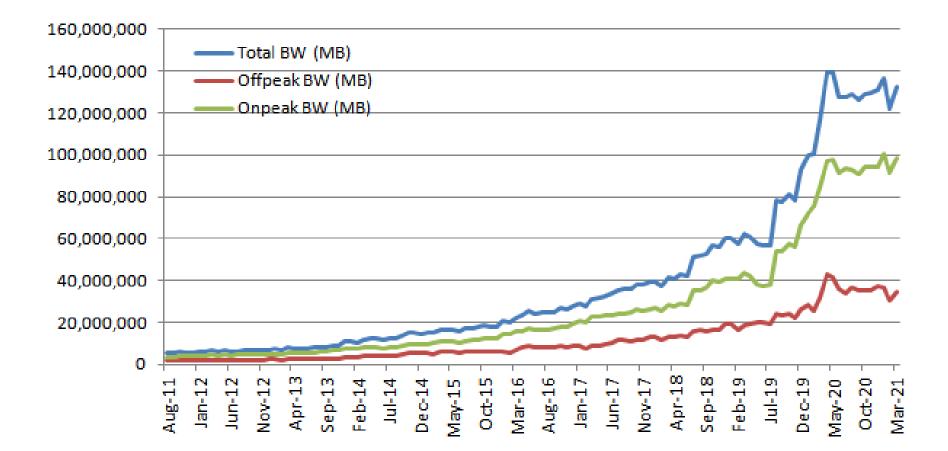




Internet Utilisation



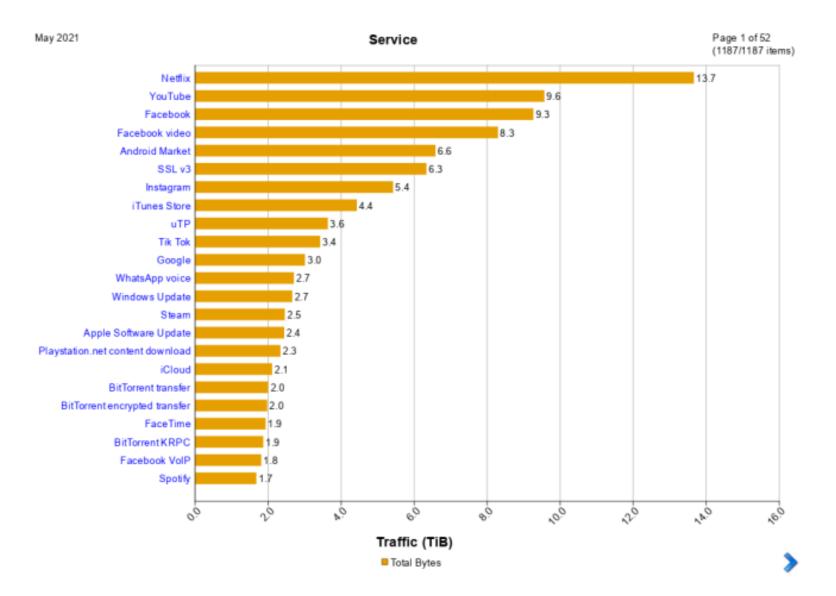
Internet Data Volumes





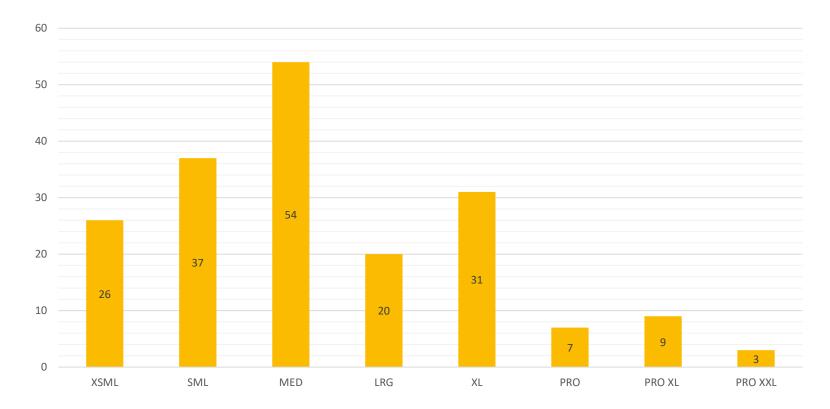
Top Traffic Types – May 2021

Traffic Statistics - All Services / All Subscribers



sure

Business Package distribution



Business Broadband Packages May 21



Future Activity

- Continue Camp upgrade works
- Capacity review
- Access Network expansion(Stanley)
- Wi-Fi refresh
- Manage network refresh
- Mobile Expansion 2G/4G
- BAU activity





Questions?



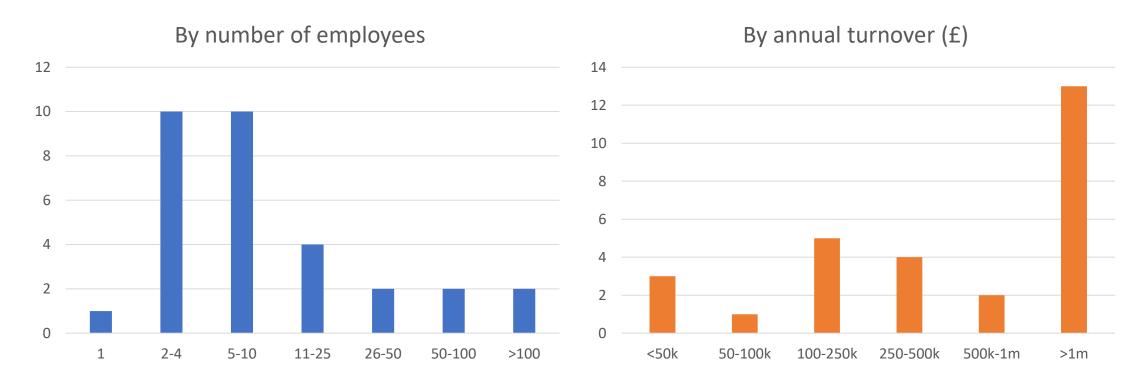
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Falkland Islands Communications Regulator

National Broadband Strategy

Results of the Business Broadband Survey 2021

Respondents to the Business User survey



Of the 31 respondents:

19 have a base in Stanley, 4 in MPA, 3 in East Falkland, 1 in West Falkland and 2 in the Outer Islands

Respondents covered the full range of Sure's broadband service packages

By broadband package

14 12 10 8 6 4 2 0 XSML (£15) SML (£37) MED (£82.50) LRG (£110) XL (£198) PRO (£330) PRO XL (£467) Bespoke

22 respondents had not changed their package in the past 12 months; 4 had upgraded and 2 had downsized.

Business users want reliable, high-speed broadband services



25



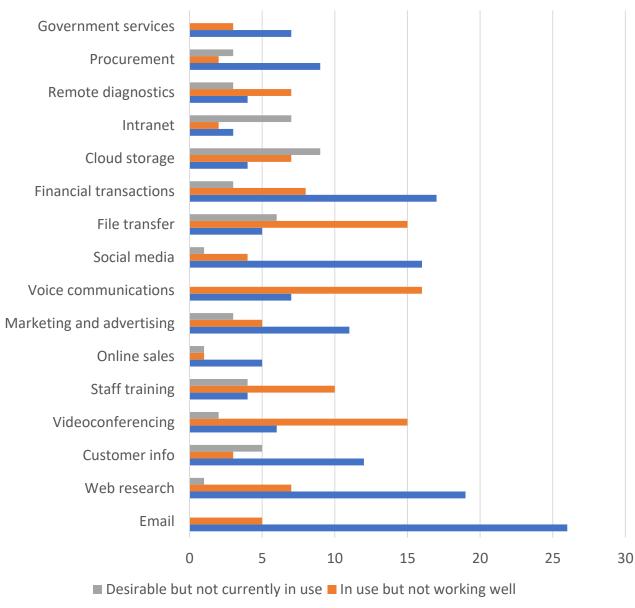


[■] No.1 ■ No. 2 ■ No. 3 ■ No. 4

- We asked respondents to rank four features of their broadband package in order of importance.
- Overwhelmingly, RELIABILITY is the top priority followed by SPEED.
- For business users PRICE and DATA ALLOWANCE are less important

Current broadband services work for some applications, but not others

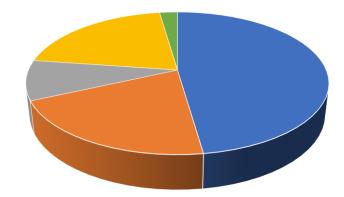
- We asked respondents to consider how well their current broadband works for certain applications.
- The chart shows results excluding applications that were not considered relevant.
- Some services such as Email, Social media messaging and Financial transactions are working well.
- Major weaknesses are in applications with higher bandwidth and QoS needs: e.g. Videoconferencing, File transfer, Cloud storage and (more surprisingly) Voice communications.



Currently in use and working well

The major problem is low broadband speeds (followed by limited data allowance)

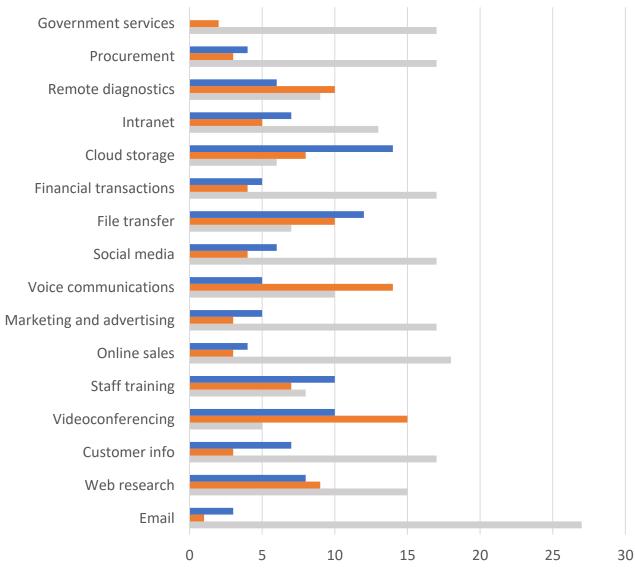
- "Available broadband speeds are not sufficient" is the main reason given for applications not working well or not being used even though they are desirable.
- Almost all the reported issues are with the broadband service rather than ICT equipment or ICT skills.



- Available broadband speeds are not sufficient
- The broadband data allowance is not sufficient
- A suitable broadband service is available but not affordable
- Broadband service is not sufficiently reliable
- Problems procuring the necessary ICT equipment
- Problems recruiting staff with the necessary ICT skills

"Unlimited" broadband would transform usage of applications that currently don't work well

- We asked respondents to imagine a future in which broadband services were "unlimited" (i.e. as fast as needed, without any data allowances, with reliable quality of service and at an affordable price).
- This scenario would transform usage of those applications that are currently not working well or not used at all, e.g. Videoconferencing, File transfer, Cloud storage and Voice communications.

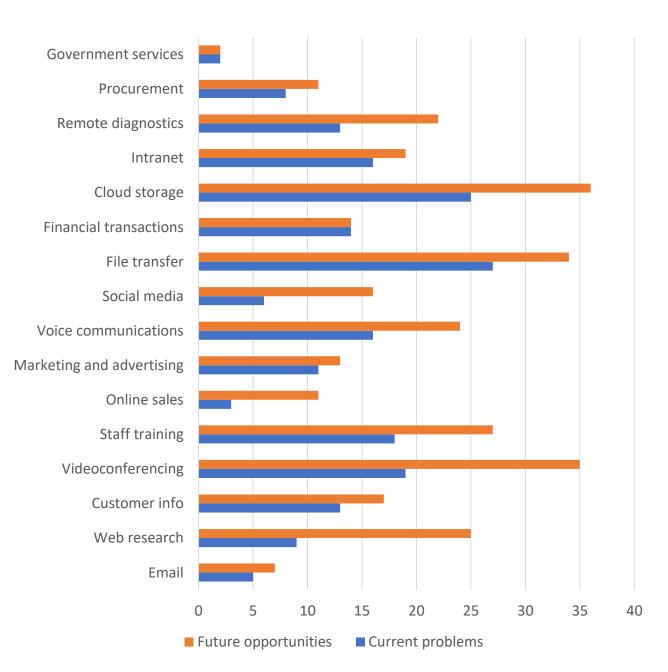


Would transform the way we do business Susbstantial increase in broadband usage

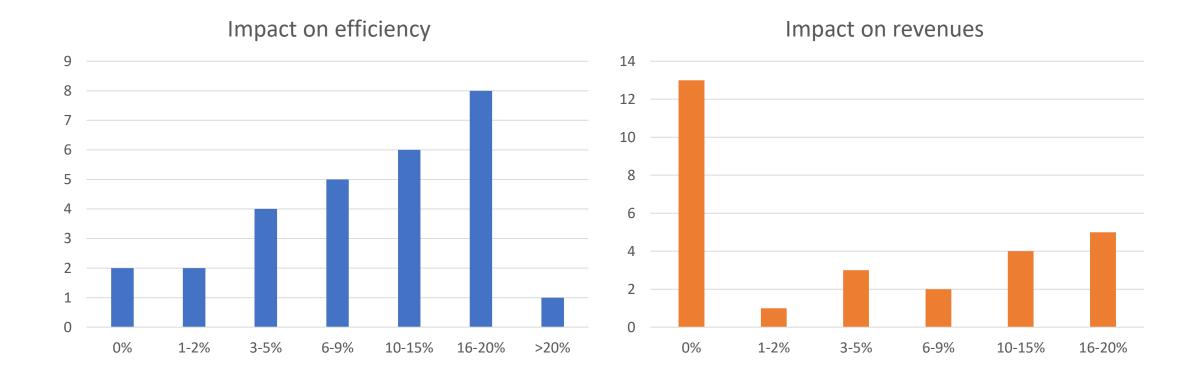
No significant change in broadband usage

There is a close match between current problems with broadband and future opportunities from "unlimited" broadband

- Current problems:
 - Score 0 for "in use and currently working well"
 - Score 1 for "in use but not working well"
 - Score 2 for "desirable but not currently in use"
- Future opportunities:
 - Score 0 for "no significant change in broadband usage"
 - Score 1 for "substantially increased broadband usage"
 - Score 2 for "transform the way we do business and a step-change in broadband usage"

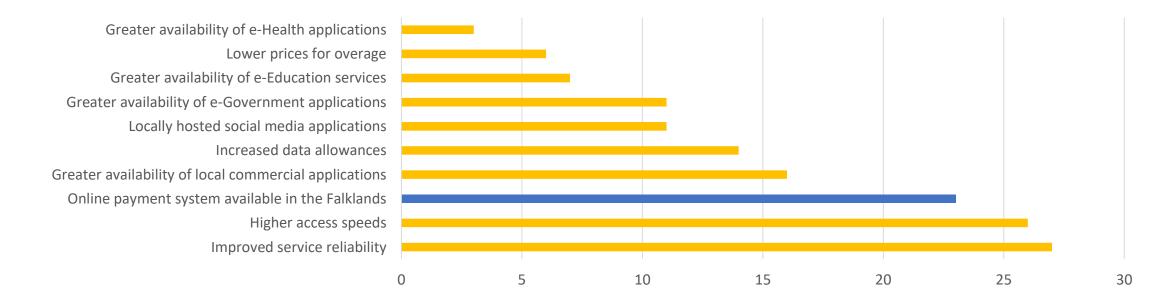


"Unlimited" broadband will lower costs but may not increase revenues



An online payment system within the Falklands will drive increased data usage

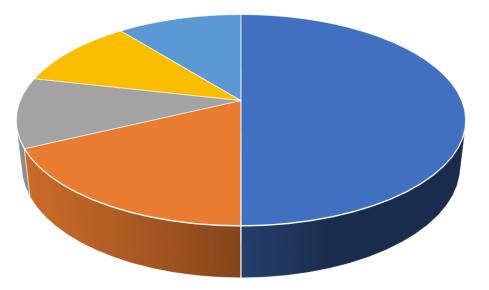
- We asked respondents to indicate what situations would result in increased use of the internet.
- Consistent with earlier answers RELIABILITY and data SPEED are top of their list.
- But it is almost as important to have an online payment system available within the Falkland Islands.



There is limited willingness to pay more even for "unlimited" broadband

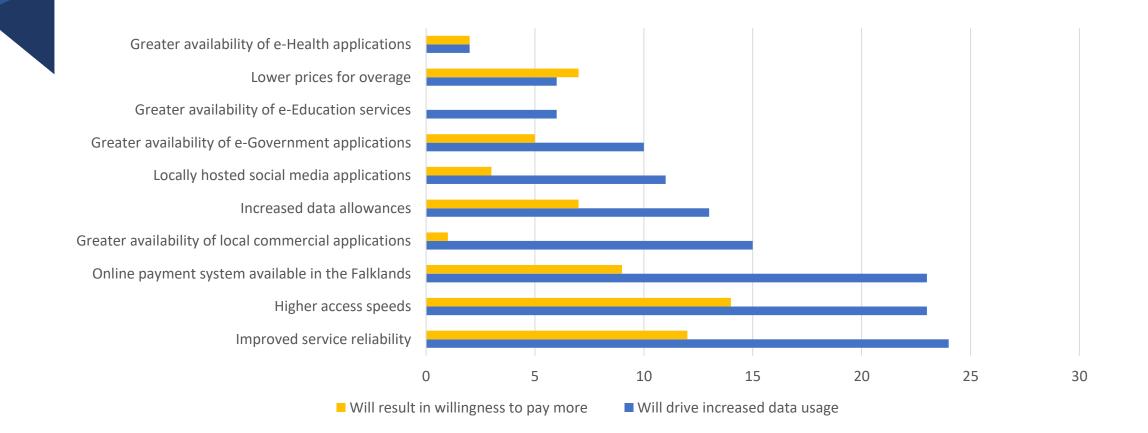
- PRICE is not a major factor in business users' choice of broadband services.
- However, several reported that services were too expensive and there is limited appetite to pay more in order to get a better service.

How much more would you be willing to pay for "unlimited" broadband



■ 0% ■ <5% ■ 6-9% ■ 10-15% ■ 16-25%

The main factors that drive will drive increased data usage will also drive willingness to spend more on broadband



ANNEX

Additional comments from respondents Our business is getting to the point whereby we need to make greater use of IT to overcome labour and skills shortages in order to achieve greater efficiency.

We are already paying a huge amount for a service with mediocre speed and reliability hence comments on not being prepared to pay more.

It's all been said before, but it's way too expensive, too slow and not as reliable as it should be. The greatest impact is the frustration and irritation in the poor service. The staff at Sure are always as helpful as they can be but often seem unable to 'see' the problem when I call to let them know the internet is down, or unable to provide a solution.

The unreliability of the internet has to be the biggest issue for me considering the very high monthly cost to my business I do not feel I get value for money.

Reliability of internet is most important. Internet & Phone signal at MPA regularly drops in and out. Internet Speed is not good enough to bring the Falkland Islands level on the Global field with basic video being a challenge and resulting in numerous man hours lost. New systems like outlook 365 or teams require more reliable connections to enable productive working.

Improved 3G & 4G packages would benefit the use of internet on the move and improve access to construction information, email access and improved interconnectivity with the global field. Lack of a good GSM network and usage does not allow for cloud storage and linking survey equipment and modern plant to the cloud.

We are a Falkland Island registered company, but we do not reside in the Falklands and we come intermittently. I would like some sort of temporary broad band plan to be more readily available for those who are in the Falklands and need to conduct business.. The wifi cards are set up for tourists who hope to send two emails home on their 4 hours ashore.

Broadly speaking we are satisfied with the current system. Reliability has improved significantly since the Bleaker Island system was upgraded However, with the availability of unlimited broadband we would examine in depth where we could take advantage of it, and there would be definite aspects which would allow us to maximise usage. A live webcam would be an obvious addition.

We would like to have a fast and reliable service to carry out online meetings and to have a training platform. Meetings are hit and miss these days as some days you have endless problems with speed and keeps dropping out. We are unable to move forward with the training platform due to the current service.

I would like the option of being able to access my "work" internet from my home so that I am not using up my family data allowance for the sake of getting work done remotely. It is extremely frustrating that I can't transfer MBs from one account to the other, nor log in between two accounts.

There will soon be alternative satellite-based coverage of the islands (Starlink) which will provide a step change in speed, bandwidth and lower latency at a fraction of the price. What we need is competition so the removal of any prohibition on using alternatives which only serves to preserve the current monopoly position. I have found when working remotely and connecting into my office systems that whilst I was in the UK the connection did not drop at any point, but when working in Stanley the connection dropped on average once an hour.

We have major problems with training. We do some training on-line but a lot of on-line training we simply cannot access because of slow internet speeds.

For the future we need to prepared for more software packages being download only with regular updates, and for the symmetrical data requirements of video conferencing.

My business simply updating social media is a real struggle. I look forward to a better internet solution which will change my business and allow for a massive potential increase in revenue. I would like to see more response metrics being introduced. Unfortunately, the current provider does not always reply to information requests or deal with complaints in a reasonable timescale. Penalties should apply if a response is not received within an agreed timescale.

Fundamentally our issues with the internet revolve around reliability and occasionally speed/capacity. The cost is very high, but we bear it as a cost of doing business. If reliability was better, data allowances higher and capacity/speed larger then we would have few issues with the current service.

Remote working is not really covered directly in the questions, if the Camp system was more reliable (considerably more than currently) and data allowances higher then in our case some positions could be either outsourced to camp or personnel could live in Camp and work remotely.