

Draft: Cable and telecommunication essential needs and delighters

The following list was pulled together using the St Helena Connected focus group (August 2018), the Pelagian report ‘St Helena Island and Directorates ICT requirements: Submarine cable connection options & evaluation’ dated July 2017, a public consultation in July 2019 and a further follow up consultation with the Chamber of Commerce in September 2019. The list outlines the minimum expectations of the telecommunications services once the cable has been lit (“essential outcomes” or “needs”) alongside desirable outcomes (“delighters”).

Type	Essential Outcomes / Needs	Delighters
School/ Education	Ample bandwidth/ speed to support live streaming of online HD/ 4K video and audio to multiple workstations simultaneously.	Library with computer banks with internet which is free at the point of use for library card holders.
	Deliver Internet bandwidth speeds to Education fraternity, which equates to at least One Gbps per 100 students.	Roll out of laptops to all school children.
	Minimum Internet Speed Requirements for an online teaching package: Download Speed = 10 Mbps Upload Speed = 2 Mbps Recommended Internet Speed Requirements for an online teaching package: Download Speed =20 Mbps Upload Speed = 5 Mbps	Researchers spend more time on St Helena, affording to write up their findings and undertake further desk top research when on island.
	All school-age children can access free Internet at school sites at certain times (to assist with homework and self-study)	All schools to conduct on-line testing simultaneously
	Access to training and development packages intended for use in more developed countries rather than enforced use of package solutions intended for the developing world and made necessary by the communications limitations.	
	Training for senior citizens to utilise IT and internet.	
	Affordable and fast enough unlimited WIFI to support speech and language therapy packages.	
	Allow all schools to conduct on-line simultaneous testing.	
	Enhanced 45Mbps Internet package for the Public Library, which will offer technical training and access to locally relevant content. The upgraded Internet access will	

	<p>also support and facilitate the following concepts:</p> <ul style="list-style-type: none"> • Educational Research • Visitors looking to keep in touch with their families • Emergency information • E-training • Hosting of webinars • Real-time videoconferencing for distance education courses. • Access E-Government Services • Faster provision to post book reviews on blogs and wikis <p>Install WIFI hotspots throughout the Public Library.</p>	
Health	<p>The General Hospital:</p> <p>Minimum 100 Mbps Internet package to support:</p> <ul style="list-style-type: none"> • Hospital Management functions • Allows simultaneous use of EHR (Electronic Health record) and high-quality video • Enable real-time image transfer • Enables continuous monitoring • Allow for the use of HD video consultations (Telemedicine) <p>Outline Clinics:</p> <p>4 Mbps Internet Package, which will support:</p> <ul style="list-style-type: none"> • Practice management functions • Allows simultaneous use of electronic health record (EHR) and high-quality video consultations. • Enables non real-time image downloads. • Enables remote monitoring 	<p>Increased use of robotic operative technologies and remote supervision of procedures allowing on-island staff to undertake medical intervention that might otherwise be unacceptably risky.</p>
	<p>Fast affordable internet to stream staff training packages (e.g. for the nurses currently completing their qualifications)</p>	<p>Smart homes for elderly people</p>
	<p>Video conferencing for mental health / counselling support services</p>	
	<p>Video conferencing for medical specialist examination by professionals in other locations around the globe</p>	

	<p>Minimum 100 Mbps Internet package to support:</p> <ul style="list-style-type: none"> • Faster transmission of CT and X-Ray Images • Faster provision of test results and supporting analysis • Remote dental radiograph diagnosis, orthodontic and oral medicine consultation services. • Established telemedicine services, less overseas referrals, rapid consultation from experts around the world, surgical operations undertaken remotely. 	
Speech Therapy	<p>Community Care Complex:</p> <p>Minimum 17 Mbps Internet package, which will support:</p> <ul style="list-style-type: none"> • Practice management functions • Allows simultaneous use of EHR and high-quality video consultations • Enables non real-time image downloads • Enables remote monitoring • Makes possible use of HD video consultations 	
Corporate Support	<p>Capacity for accessing digitised Archive documents by researchers from overseas.</p> <p>Improved video conferencing for Elected Members.</p> <p>Expansion of SHG's website.</p> <p>Live streaming of formal LegCo meetings and Council Committee meetings.</p> <p>Enhanced video links for the Judicial Services.</p>	
ENRP & I&T Directorates	<p>Remote data storage off Island for back up and disaster management.</p> <p>On line offering for Land Registry with payment gateway.</p> <p>On line Maps for international potential buyers with payment gateway.</p>	

Business and Government	Unlimited internet e.g. for uploading high-res photographs, WTSDN blogging & social media channels incl YouTube, FB videos etc., running apps, online courses/training	Internet affordable and fast enough to use VOIP or Skype for business system at every desk.
	Reliable Video Conferencing	No service disruptions
	Fibre link infrastructure upgraded and provided over the whole island	Refunds for disruptions
	Faster internet speed. Also faster mobile data.	Larger online presence of St Helenian businesses (including hotels/restaurants) which provide a better advert to prospective tourists.
	Minimal periods of lost communications in the realm of the operator's control. Risk reduction/provision for continuity after lost communications due to weather, atmospheric or celestial influences, physical damages to the cable, environmental damages to the landing station, cyber-attacks and island wide power outages.	Tourists using social media more to informally advertise St Helena whilst on holiday.
	Faster uploads and downloads. Download programmes e.g. Microsoft office, within hours not days.	Access to e-commerce on St Helena.
	Greater resilience to loss of communications for the island and the Government	Tourists expect to be able to make online and digital payments.
	Ability to use Skype or WebEx when seeking advice from engineers for equipment faults etc. and also provide an uninterrupted connection when carrying out remote ISO 17025 assessments.	Multiplier effect on the economy due to lower input costs into business, and higher resulting investment.
	Ability to route calls through a Private Branch Exchange (PBX) system.	Data centres located in St Helena
	Ability for those dialling St Helena internationally to be able to get through.	St Helena websites being able to take payments online (as opposed to relying on bank transfers).
	Reduced cost of internet leads to reduced costs for online banking, debit card services, insurance services and products.	Bank of St Helena - Cards used for local and international payments by locals and visitors, contactless credit cards, online banking, mobile verification for banking security.
	Economically feasible to use cloud storage services.	Full coverage in order to utilise translation devices e.g. Google Translate
	Ability for accommodation providers, restaurants, clubs and library/college to provide complementary WIFI for their customers/members. WIFI available for free at particular venues during conference events.	'Free internet time' if unlimited packages are not available - to help with keeping devices updated, keeping media-rich websites updated, and downloading of large emails. Ideally during normal office

		hours, earlier or later than the current window to help high internet using businesses.
	Increased communications resulting from more affordable and accessible internet with respect to information, and news dissemination.	Ability to manage own account specifically to change passwords.
	Establishment of a wider range of digital businesses on the island. Increased investment on St Helena.	The ability to combine two or more phones on one account, and to sync them.
	Enable workforce education.	The ability to include multiple services by having an integrated POTS/mobile/data service and contract.
	Enable telework and distributed work.	Rollover prepaid service (both minutes and bytes)
	Enable job creation, which will stimulate economic activities.	A push to get St Helena recognised as a place – many websites offer only a drop-down list for a choice of address countries and St Helena is frequently missing from the list. I don't know how this can be done, but it needs addressing.
	Improved mobility computing, ability to undertake research at home.	An ambition to work together with the Bank of St Helena to move to cashless payments.
	Economic/competitive rates to encourage satellite ground stations to locate in St Helena	The ability to allow tourists to roam their own mobile service
	Streaming St Helena events online	The ability to send emails with a non-Sure email address without having to sign up to a non-Sure provider.
	Connect to Wi-Fi via an internet dongle	Ability for IT support to connect to over a fast connection to specialists to help with Sage
	An SMS service that works worldwide (incoming SMS often currently fails from offshore origins)	
	A lifting of the contractual prohibition to use IP telephony (It is not currently enforced, but legally, the contract you have signed prohibits you from using Skype/WhatsApp/Messenger etc for voice/video calls).	
	Ability to host ecommerce sites, either on island or off island, which would allow customers to view retailer's ranges. Plus a basic basket system for wholesale customers to use.	
	Ability to link across properties i.e. across Main Street between two buildings or sites.	

	Ability to access things at work from home i.e. email, computers, CCTV systems and Alarms	
SHG specifically	Licence fee paid by telecoms provider (helped by revenue from ground satellite stations) covers cost of fibre optic cable. Profit share on satellite ground station revenue.	Several satellite ground stations based in St Helena, earning SHG revenue in excess of £1m per annum net of cable costs (through fixed fee, profit sharing or otherwise).
	Overall annual internet price reduction to government alongside an improvement in speed and reliability. This will free up revenue funding for other government services.	Terminal owned by SHG and sub-contracted to telecoms provider.
	Improvements in speed and reduction in cost occurs immediately when the cable is lit.	50% annual internet price reduction to government alongside an improvement in speed and reliability.
	An Independent regulator- Regulate the telecommunications provider to ensure value for money	
	Ability to apply for services/licences and pay taxes online	
Personal	<p>Reduced costs –</p> <p>≥5Gb at ≥17Mbps at ≤£10 + ≤1p per MB if allowance runs over (targeted to support very low income users to access the internet). Must be a package affordable for those on a basic island pension income (which is currently around £70 per week).</p> <p>≥20Gb at ≥17Mbps at ≤£40 + ≤1p per MB if allowance runs over (targeted to support low income users to access the internet)</p> <p>Unlimited internet at £50 at best available speed.</p> <p>Mb charges for going over allowances not to exceed the package per unit charge.</p> <p>Local data exchanged should be at a lower cost – not routed through external route and back to the island.</p>	<p>Affordable internet – Unlimited internet at a price similar to UK (11MB/s at £16.50 and 35MB/s at £20 per month)</p> <p>Price reductions over time.</p> <p>If no unlimited internet, then still a ‘free’ internet time, but extended to assist children’s homework e.g. until 7am.</p>
	Interim target 2021 - Technical capacity to connect at least 70% of subscriber sites at downlink speed ≥15Mbps	No service disruptions
	Minimal periods of lost communications in the realm of the operator’s control. Risk reduction/provision for continuity after lost communications due to weather, atmospheric or celestial influences, physical damages to the cable, environmental damages to the landing station, cyber-attacks and island wide power outages.	Refunds for disruptions

	Able to stream video freely in at least 2 rooms in one household at the same time. Uninterrupted services and more devices linked to unit.	Affordable hardware available for senior citizens to help them access the internet.
	VOIP as a standard provision to manage overseas communication	4G service at a price similar to UK (6GB at £10 per month)
	Faster internet speed. Enhanced bandwidth.	Affordable to stream movies on subscription e.g. Netflix.
	Quicker uploads and downloads. Download programmes e.g. Microsoft office, within hours not days.	Minimum Income Standard calculation to include basic internet package costs to ensure internet is affordable for those on island pensions.
	Ability for international sim cards to roam in St Helena	Competitive market where customers have a choice who to buy their internet service from.
	Improved 4G coverage and reduced 4G price (packages targeted for low income users and tourists to access the internet).	5G network coverage across the island
	Ability to receive overseas texts rapidly to use real-time authentication services	Free WIFI spots available to all (not just provided to guests and customers)
	Internet cafes and free Wi-Fi spots -Ability for internet to be sold or provided to guests or customers	More service providers and unrestricted communications licencing
	Improved customer satisfaction.	Introductory discount to get more users into internet use.
	Ability to stream music, webinars, media, high quality video, skype, VOIP, gaming at an international level. Multiple tab searches. No longer experience poor performance due to network latency	St Helena as a digital hub; satellite ground stations, strong financial services industry, call centre services, gaming centres, gig economy. Secure digital storage facilities provided to other jurisdictions.
	Free internet times should be extended and free for all regardless if package limits have been reached.	Being able to reserve, buy or order the majority of what you want from the internet – ‘internet of things’ including buying online from local stores and delivery.
	Economically feasible to use cloud storage services.	Digital ready homes with eco benefits. Automation systems to control devices e.g. lights, water heating, within the home.
	Greater e-commerce and online shopping including buying goods online in St Helena	No need for after midnight use.
	Cheaper modems	Internet accessible taxi service, and EPOS systems would be seen in shops, bars, restaurants and public places

**Nicole Shamier – Chief Economist & Jeremy Roberts – Head of IT, for St Helena Connected
St Helena Government
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