



PROPOSAL FOR THE IMPLEMENTATION OF DIRECT INTERNET ACCESS BANDWIDTH FOR

LSJ

Name: **Omar Welch**, Director, Business Sales & Customer support
Company: Choice Communications
Contact: [REDACTED]

Date: July, 02th 2014

A handwritten signature in black ink, appearing to read "Omar Welch". The signature is written in a cursive, fluid style.

1. Introduction

Choice Communications is the leading Internet Service Provider, and a leading Mobile Service Provider in the US Virgin Islands. It has its beginning in the early 1990's and has morphed into the powerful telecommunications service provider today. Choice offers a variety of handsets and services to enable the users to stay in touch with each other both here and abroad. Choice also offers residential Internet services up to and includes 5 Mb/s, providing the users the capabilities to high bandwidth internet usage in many ways. For convenient access to apply for these services, Choice provides four elegantly decorated stores with a complement of excellent, knowledgeable and customer-centric staff. Our customer service experience is par none.

Many enterprises in the territory have turned to Choice to provide extremely stable, high capacity dedicated symmetrical Internet service for their most demanding needs. Many of our customers have off-island databases and repositories on the mainland. They have frequent video conferences to offices around the world which they are affiliate to. They need their services to be always available. In many cases, their transactions are critical, and time and quality sensitive. They have their stringent security and availability requirements that must be met. To fulfill all their requirements, including high capacity and guaranteed bandwidth, they undoubtedly turn to Choice Communications.

2. Enterprise Service Offering

Choice offers dedicated symmetrical internet services ranging from 3 Mb/s upwards to as much as required. This service is delivered to the customer by high capacity, extremely stable and reliable microwave transport vehicle. Unlike most internet services this is a guaranteed offering much like a T1 circuit, this is however brought to you via an IP based circuit allowing for more bandwidth and at a more affordable cost. After installation, bandwidth can be allocated in minutes after the request is made and agreed. The air interface for the microwave is secured to provide eavesdropping, intrusion or manipulation of unsecured data. However, enterprises usually would use their encryption technology to protect their most sensitive data.

3. Customer Service Experience and Support

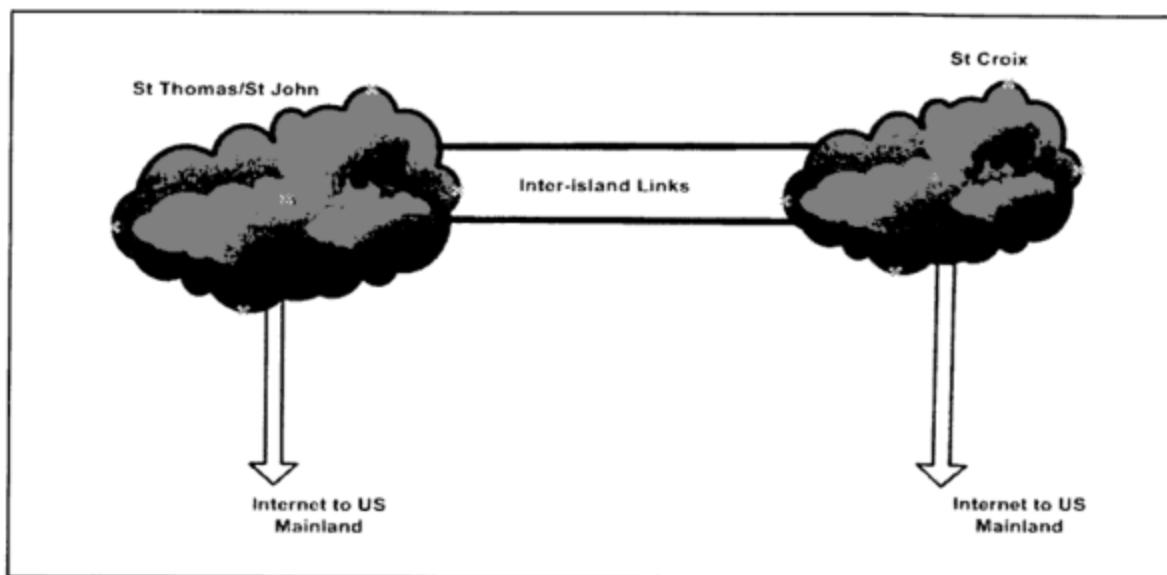
Not only is our network technically superior to our competitors, we complement this with exceptional customer service and support. To distinguish between residential and enterprise support, it should be noted that after sale support is provided to Choice residential customers by a team of experienced support staff. However, for enterprise customers, the

technical and sales teams provide direct support as soon as you need it. This eliminates several steps in the normal support process, as issues are escalated directly to the top, to minimize the time to resolution. The network is monitored on a 7/24 basis, and provides a real-time view of its performance for the engineers.

4. Choice Network Overview

As indicated above, Choice is a leading provider of internet and mobile services in the USVI. Its mobile services are run on a well-tuned CDMA network. We boast of the best coverage, highest mobile data rates and fewest drop calls in the USVI from a recent drive testing survey done on all carriers. Its residential internet services are provided by a version of 4G called WiMAX, offering up to 5Mb/s down and 3 Mb/s up. Its enterprise customers are served by a highly secured, high capacity, microwave system. The microwave system is extremely reliable, and robust. The vendors provide these systems to the US military in Afghanistan and other deployments currently.

Choice has 2 links between St Thomas/St John and St Croix. Its two off-island internet services are also split between the islands, one in St Thomas and the other in St Croix. This adds resilience in the network, so that internet is available to subscribers in the unlikely event that service is interrupted at one of the off-island points of presence (POPs). Please see below an overview of the Choice Network.



5. IP Based Data Service quotation

To satisfy your requirements as was delivered to Choice, please see below our offering+

Total Bandwidth	Monthly Cost	Yearly Cost
40Mbps	\$2,200	\$26,400
60Mbps	\$3,000	\$36,000
80Mbps	\$4,000	\$48,000
100Mbps	\$5,000	\$60,000

***Package reflects dedicated symmetrical bandwidth to site**

***On call 24hr Tech support**

*** Installation**

*** IP Addresses**

Note:

Validity of offer: 30 calendar days from date of quote.

Delivery: Standard delivery 60 days

Contract: 2 year commitment

Agreed & accepted:

Omar Welch
Director Business Sales

Date

Date

APPENDIX A

Dragon Wave Compact Microwave Technical Specifications

Frequencies

6 GHz FCC/IC/ETSI/ITU/AUS/NZ/ RUS
7 GHz ETSI/ITU/NZ/MEX
8 GHz IC/ETSI/ITU/UK/NZ/RUS
11 GHz FCC/IC/ETSI/ITU
13 GHz ETSI/AUS/NZ/ITU
15 GHz IC/ETSI/AUS/NZ/MX/ITU
18 GHz FCC/IC /ETSI/AUS/NZ/ITU
23 GHz FCC/IC/ETSI/AUS/NZ/ITU/MX
24 GHz (UL) FCC/IC/ETSI
24 GHz DEMS FCC/IC
26 GHz ETSI
28 GHz FCC/ETSI
31 GHz FCC (LMDS)
32 GHz ETSI
38 GHz FCC/ETSI/AUS/NZ/MX

Mechanical

Radio/Modem (w/o antenna) 12 cm x 23.6 cm x 23.6 cm; 4.8kg
(4.75 in x 9.3 in x 9.3in; 10.6 lbs)

Antenna Wind Loading 112 kph (70 mph)

Operational

200 kph (125 mph) Survival

Antenna Mount Adjustment $\pm 10^\circ$ Az; $\pm 25^\circ$ El

Payloads

Interface 1000/100/10 BaseT

Latency 100 BT < 400 μ s, Typical < 200 μ s FastE

Latency GigE < 200 μ s, Typical 120 μ s GigE

Frame Size 64 to 1600 Bytes, up to 9600 (GigE Mode)

Flow Control Yes (GigE mode only)

802.1p Yes – 8 levels served by 4 queues

802.1q Yes

Modulation Shifting Current to Lowest ~100 mS

Power

Input -36 VDC to -60 VDC, isolated
Optional Adapter 110/240 VAC
Consumption (per link end) 20 Watts (LP) 47 Watts (HP)

Connections

Power -48V, PonE
Payload (+ Inband NMS) Shielded RJ45 or optical LC
NMS (when out-of-band) Shielded RJ45

Network Management (NMS)

Alarm Management SNMP Traps, Enterprise MIB
NMS Compatibility Any SNMP based network manager SNMP v1, v2 and v3
Security 3 Level Authentication
EMS Web Based Management System, SSL HTTP,SSH, Radius

Environmental

Operating Temperature Standard Power (18-28 GHz)
-40°C to + 50°C (-40°F to +122° F)
Humidity 100 % Condensing
Altitude 4500 m (14,760 ft)
Water Tightness: Nema4X, IP56 (directed hose test)

Operational Shock: ETSI 300-019-1-4; 5g 11ms

Operational Vibration: ETSI 300-019-1-4 Class 4m5,

NEBS GR-63

Earthquake: NEBS GR-63