To: J Epstein[jeevacation@gmail.com]
Cc: Darren Indyke[[redacted]]
From: Brice Gordon
Sent: Fri 5/22/2009 3:18:55 PM
Subject: LSJ Telco/Data

Title: LSJ Telco/Data FYI, we seemed to have come full circle on this, back to Microwave link to deliver service to LSJ. I will review info from Dick Sherwin, VCI and others and will forward a solution to you, I will need at least 2-3 weeks.
Brice
------ Forwarded Message
From: Richard Sherwin <[redacted]
Date: Fri, 22 May 2009 06:22:45 -0400
To: Brice Gordon <[redacted]>
Conversation: Options
Subject: RE: Options

Brice,

I think a direct microwave link from a point of presence on STT would be your best option, if that works. That is, you need line of sight from a tower on STT to LSJ. The cost of a direct microwave link using unlicensed spectrum, would not be that expensive. That could get you operational quickly and then you can apply for a frequency license in a similar band to avoid changing radios. If you can get 45 mbps service from either ATT or Sprint, and bring it to a tower on STT, I would estimate that the cost of the equipment would be under $30,000. I have pasted a potential product for your review below.

Establishing a demarc on LSJ would be easy and you could use intelligent switches to power wired and Wi Fi driven access points across the entire island. The power issue is relatively simple to deal with. A small diesel power generator at $25,000 can be placed on both LSJ and STT (provided ATT or Sprint can survive power outage) to provide power back up for as long as you can acquire diesel fuel.

The key issue is what you will need to pay either ATT or Sprint for 45 mbps service and tower space on STT.

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SkyWay Excel Series 5.8 GHz MIMO 100 Mbps Throughput Link

Technology Summary

TThe SkyWay Excel Series, Solectek's third-generation 5.8 GHz Broadband wireless product line, represents a quantum leap forward in meeting the ever-increasing needs for backhaul capacity across unlicensed spectrum. Outperforming others in the market, the Excel Series is capable of delivering a full **100Mbps of usable throughput at long range**. This extraordinary capability is possible through the use of an outdoor grade, **2x2 MIMO (multiple input, multiple out) radio system**. The RF packet transport of the Excel Series is optimized for high capacity links and is capable of preserving the maximum amount of throughput at long distances. Tuned frame aggregation in conjunction with Solectek's **HyperARQ™** intelligent packet retransmission makes the most of the Excel MIMO architecture and the limited spectrum. Quality of Service (QoS) features within the SkyWay Excel architecture allow tagged voice and video traffic to take priority over general data packet transfer, providing reliable, real-time capability even under congested link conditions. Priority privileges for marked frames are maintained from port to port: Ethernet through RF. With security remaining a key consideration in many applications, the SkyWay Excel Series delivers 128 bit AES encryption / decryption. The AES algorithm was selected to be the standard encryption method of the US Government by the National Institute of Standards and Technology (NIST). In addition, the Excel Series provides up to two levels of AAA protection through the configurable use of 802.1x/Radius and RF MAC authentication. The Excel Series PTP kits are available with integrated 23 dBi antennas, external 29 dBi antennas, or connectorized with dual N-type RF connectors.

Picture

<http://www.solectek.com/pic.php?id=swexcel>

SkyWay Excel Series

PTP Backhaul

PTP Applications

Wireless carrier / ISP backhaul Metro/Core backbone Emergency / disaster recovery

Video/ Surveillance backhaul Other Ethernet data transport applications

Richard J. Sherwin
Chief Executive Officer
Spot On Networks, LLC
[redacted]

No Wires, No Worries, No Waiting

From: Brice Gordon [mailto:[redacted]]
Sent: Thursday, May 21, 2009 12:50 PM
To: Richard Sherwin

Subject: FW: Options

FYI
looks like Microwave is our only alternative, please let me know your thoughts
Brice
------ Forwarded Message
From: Clarence Arthur <[redacted]>
Date: Thu, 21 May 2009 04:33:46 -0400
To: Brice Gordon <[redacted]
Cc: William Murphy [redacted]>
Conversation: Options
Subject: Options

After many road blocks of ideas that I thought were going to work, I think what's going to have to happen is that we'll unfortunately have to speed up the testing of an alternative setup to the mpls network. One of the short term solution that ATT recommended was to setup a high gain antennae to connect to the cellular network and get about one meg to a meg and half so that we can test to see if we're able to engineer a solution that will still provide the services that users currently need. I thought about just getting a local provider on this, but most likely they'll usually want a at least an annual contract. There shouldn't be too much of an investment and we wont be causing any interruption with current network services that are being utilized.

If we can successfully come up with a new design that is agreed upon, and test it, the idea would be to use the existing circuit that sprint uses to bring service over and move forward with the migration from them. The only downside is that the power outage problem will still remain, however we can start there from getting in the necessary bandwidth.

We may have to go back to looking at the wireless solution, but i know that given the time frame and the issues that will arise with that, hence pushing forward with the alternative setup to test the speed and network services of the cellular connection. I'm not convinced that this will be able to handle all of the need, but it will serve the purpose in the interim of moving forward.

Let me know if we need to get together to discuss the options via conference.

Roadblocks:

The initial thought of extending the demark is possible, and would allow a bypass to to the shutdown of services if there was an extended power outage. However, I was told that Innovative will not do it, even if we can split the channels of one of your circuits. However, I think if Cecile puts in a request, things may change on that end, and also in speeding up getting a new circuit if were to just go ahead with a connection from ATT without any wireless, but dont know the details on if that's possible. If it's not we're a bit stuck on getting another data connection in order to test out what we'll need to have in place in order to maintain current network services to then migrate from the current setup.

One other option that I wanted to see was to we could get the LSJ fiber into the Char Am office in town where ATT's data connection comes into the island. This would have literally brought down the connection time frame into weeks instead of the estimated several months. We could then directly hook into ATT pipe, and we'd be good frim there for whatever capacity. Currently the fiber has a run only from one of Innovative's east end location out to the island, and does not reach into town. This could be solved in that usually if we're able to get into their Nazareth location, they would be able to create a fiber musk and that would loop into their direct runs into Char Am, but once again this is what would be incredibly costly and time consuming as this would have to bring in WAPA, permits, the whole nine yards of doing digging up the road. We could do an arial run, which would speed up the time, but the cost for this would still be high.

there were two more thoughts, but they also were a no no. I think the best use of time now would be to see how we can get a temporary setup and go from there.

On Wed, May 20, 2009 at 9:48 PM, Brice Gordon <[redacted]> wrote:
> Do we have any updates Please, I'm seeing JEE tomorrow.
> Thanks Brice
>

>

------ End of Forwarded Message

------ End of Forwarded Message