

# 2016-2017 SNC Manager's Year End Report

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## I. Introduction

Listed below is a summary of projects and issues undertaken since the 2016 AGM. I've also provided a summary of the allocation of labour for both myself acting as manager and our former consulting engineer, James Clendenan.

## II. Projects 2016-2017

### A. New and old internet provider links

#### 1. Steveston

Status: not viable (fair signal but expensive quote from Telus)

#### 2. Roche Harbour

Needs final alignment and routing/IP configuration at site and Warburton-Pyke tower building.

#### 3. Beacon Wireless

Reasonable connection between Mt Bruce and Warburton tower made (albeit currently lower throughput speeds than the Steveston test), need to confirm pricing and configure routing/IP assignment)

#### 4. Orcas Online

Connection status as usual but the Orcas router appears to be overloaded in evening.

### B. Public IP Addresses

At present we share a public internet protocol (IP) with Orcas online so we appear to most websites to be sited in the US. Additionally, the Orcas main router issues private IP addresses (NAT) to all its subscribers (including Saturna Net). Depending on a router issuing private addresses is one reason why we experience slow speeds during periods of heavy use ("the Netflix Effect"). Saturna Net has allocated \$6000 to purchase our own block of IP addresses but we need to also have developed our own link or link with Beacon who has agreed to provide us with our own set of IP addresses.

### C. Backbone Improvement

The owner of the property that hosts a primary relay station for three radios in Lyall harbour asked us in 2016 to find site alternatives because the host tree on the site was slated for removal. One of the radios was recently relocated and the other two should be relocated in the next two weeks. The relocation is also giving us the opportunity to remove some of the radios from trees that need a climber. Additionally, we are upgrading and (we hope) improving connectivity further down the line at known problem access points. That work is ongoing but should result in more consistent connectivity and high throughput speeds.

### **III. Tsawwassen Connection**

Ongoing intermittent connectivity issues for all clients on this connection—long term solution is to either find a new access point site on the Tsawwassen side or find a way to connect to main Saturna internet grid

### **IV. Federal grant application**

A third party, Rhicom (Kayle Tjomsaas) submitted an application on our behalf to the Federal Connect to Innovate grant program asking for approximately \$431,000 (SNC is obligated to provide 10% of that amount). Ostensibly, the grant would pay for a new licensed 6ghz radio that purportedly would provide a 300mbps to 1gbps connection to Mt Bruce on Salt Spring. Funding announcements are due sometime in August. Some unknowns with the grant if approved include availability and cost of getting the 6ghz license from Industry Canada, internet service provider at Mt Bruce and monthly cost of connection.

If we do receive funding for this application, the 10% contribution is not due up front but would rather be paid out over the build period. Actual funding is not available until 2018 and completion date is slated for 2019.

### **V. Manager's and Consulting Engineer's labour allocation**

In February 2016, I was hired as project manager to:

- Manage network operations such as subscriber communications, purchase insurance, purchase a block of IP addresses, etc.
- Manage the effort to create a new link to a Canadian internet service provider
- Manage the upgrade (and in some cases relocation) of the primary radio connections on island (the island backbone).

Initially, in 2016, my invoicing allocated my time to general management and the new link project. During that 2016 period, 58% of my time was spent on general management and 42% on the new link project. Total billing for 2016 was \$21, 386.

In 2017-07-21, invoicing reflected not only general management and new links but also the backbone improvement project. Allocations for those categories are 50% for general management, New Links 20% and backbone improvement project 30% (totalling \$8,190 invoiced through June). In May, SNC directors asked me to limit my invoicing to a maximum of \$1000 per month.

In spring, 2016, SNC directors hired James Clendenan to consult on the new link project, network improvement, troubleshooting and network monitoring. You may remember it was he that finally solved last year's months long slow connection with Orcas by advising Orcas that they needed a larger router on their end to handle their increased subscriber base. He was hired on a monthly contract with a minimum 1.5 days allocation (\$1000/month). As of May, 2017, the directors voted to terminate this arrangement. Based on a review of work performed, here's a rough category allocation of the total amount (\$11,748) paid to James over that period:

- New Links—35-40%
- Network improvement, troubleshooting and monitoring—55-60%